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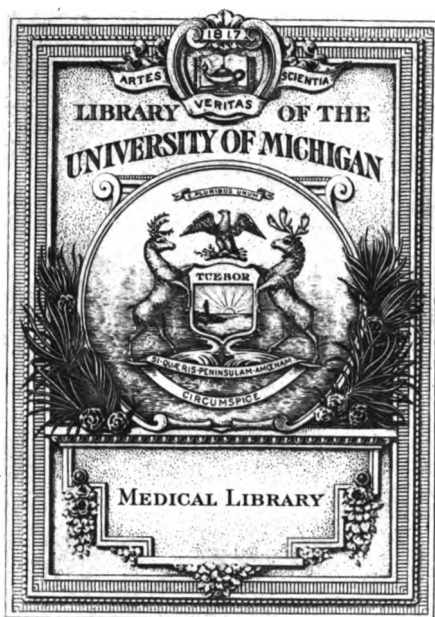
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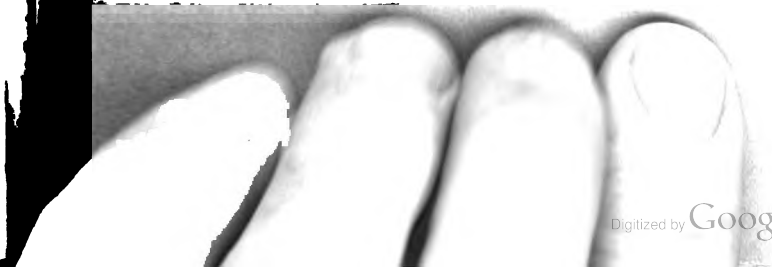
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MEDICINE AND SURGERY.

EDITED BY

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No. 1.

ORIGINAL COMMUNICATIONS.

[I.]

PNEUMONIA.

BY S. H. POTTER, M. D.

This malady is so common in our very changable climate, it is important that we have clear ideas of its character, and how to treat it. No age is exempt, and many suffer repeated attacks of this disease. Cases are reported in which persons have had pneumonia eight to fifteen times, before their fatal issue.

Definition.—Inflammation of the substance of the lung.

Varieties.—According to its *seat*; single, double, lobular. According to *causation*; idiopathic, from cold and wet; traumatic, from injury; tuberculous, in phthisis, and typhoid pneumonia.

Symptoms and Course.—A chill or stage of depression, followed soon by fever, with oppression in breathing, dull pain (not always present) in the chest, and sometimes short cough. Delirium is common. Temperature of the body high, especially on the fourth or fifth day; sometimes, in the evening, reaching 104° or 105° Fahr. in the axilla. Secretions scant, as in other febrile states. Urine containing an excess of urea, but deficient, especially in the chlorides, in the middle period of the attack. Expectoration commences about the third day

usually, the sputa being composed of mucus, lymph and blood mixed together, making the *rusty* sputum of pneumonia.

The height of the attack is generally reached between the fifth and seventh day, after which, the temperature declines, and, in favorable cases, all the symptoms subside. In others, oppression in breathing and prostration increase; cough deepens, and expectoration becomes more abundant, at last purulent. Death seldom occurs before the sixth, and may be as late as the twentieth day.

Stages.—1. That of congestion or engorgement, and the commencement of exudation. 2. That of exudation and red hepatization. 3. That of gray hepatization, softening or purulent infiltration.

Physical Signs.—These differ in the three stages. In the first, they are: moderate dullness of resonance on percussion over the affected lung, and, on auscultation, after the first day or two, the *fine crepitant rale*.

In the second stage: Decided dullness on percussion, no rale, but, instead, *bronchial* respiration and bronchophony, with increased vocal fremitus.

In the stage of softening or suppurative infiltration (gray hepatization), dullness on percussion, and coarse crepitant or mucous rale.

When *resolution* follows the second stage, as in most cases of recovery, the bronchial respiration gives way to returning fine crepitation (*crepitus redux*); and then the dullness of resonance on percussion also generally disappears.

Terminations.—Resolution; death in the second stage, from asphyxia; death from exhaustion, in the third stage; recovery after the third stage (uncommon); abscess; gangrene of the lung.

Morbid Anatomy.—The *lower* lobe is almost always the seat or origin of the disease. Should death take place (as it rarely does) in the first stage, the lung would be found somewhat swollen, dark-red, inelastic (splenization), and filled with blood or bloody serum. It will still float in water, though heavier than healthy lung. It is easily torn.

In the second stage, of hepatization, the lung is no longer spongy, but presents considerable resemblance to the liver, although a finger may be easily thrust through it. When entirely hepatized, it will not float in water, the air being displaced from the cells by the exudation of coagulable lymph.

The third stage consists in the degeneration (in the absence of more favorable *resolution* by absorption) of the exudation. This occurs by *granulation*, *softening* and *suppuration*. Mostly the latter is infiltrated; occasionally an abscess forms. In gray hepatization, the lung is solid, impermeable to air, with a granite-like appearance of red and white points on section. It sinks in water, but is more easily torn or crushed into a pulp than in the second stage.

Diagnosis.—The only affections with which pneumonia is likely to be confounded are pleurisy, bronchitis and phthisis. In children, collapse of the lung has been mistaken for lobular pneumonia.

From pleurisy, it is known by the absence of the sharp pain belonging to the latter, and by the crepitant rale and rusty sputa. From bronchitis, by the dullness on percussion, rale, bronchial respiration, and bronchophony. From phthisis, by its sudden onset, fine crepitation, and sputa, as well as by the acute violence of the attack. Latent pneumonia sometimes complicates fevers, etc.

Prognosis.—Simple pneumonia of one lung in a young and previously healthy person, ought, under favorable circumstances and judicious treatment, always to be recovered from. In the aged, it is dangerous; and double pneumonia is so at all periods of life, though good recoveries do occur. It is double in about one case in eight.

Among the unfavorable signs—most of which are obvious—are expectoration of pure blood in the first stage, and albuminuria in the second.

Treatment.—An emetic, followed by a cathartic, is usually proper to begin with.

The *early* administration of a purgative, as epsom salts or citrate of magnesia, is proper in the absence of any special

contra-indication. A water-pack on the chest or hot fomentations do good.

The hot skin, hard or oppressed pulse, pain and dyspnoea, and more or less darkly-flushed face, require small doses of aconite or veratrum, followed by ipecacuanha or nitrate of potassium, gr. x, every two hours. Some prefer acetate of potassium.

Asthenic pneumonia requires a different treatment; and the same will apply to the third or suppurative stage of all cases. Support may be required, in a few cases, even from the first, by beef-tea, wine, or spirits (best with nourishment, as in punch), quinine or ammonia. In the hospital, some cases may recover under this plan *alone*; but they are the exceptions. Beef-tea in the second stage, and quinine later. A large blister over the affected part is generally useful about the fifth, sixth or seventh day of the attack.

Typhoid pneumonia is a term not always uniformly applied. It means, sometimes, or with some authors, inflammation of the lungs, complicating typhoid fever; others include under it all cases of asthenic pneumonia. More generally, however, it designates that form of the disease in which epidemic or endemic influence has impressed a peculiar character. Malarial regions, especially, exhibit this, in the "winter fever" or typhoid pneumonia of our Southern States. Early and late debility, out of proportion to the local symptoms, with a tendency to low delirium, and to remittance, mark this disorder. In treatment, it bears no depletion, hardly the reduction of excitement by a sedative. Diaphoretics first, as ipecac., one grain, alternated with five or ten grains of nitrate of potassium, every three hours; or liquor ammonii acetatis, or solution of acetate of potassium; then quinine, when the need of a tonic is apparent, which may be very early; with strong liquid nourishment, and moderate counter-irritation. These are the measures usually proper in typhoid pneumonia. Supporting, nourishing measures are indispensable to success during the entire treatment of such cases.

This very brief outline of pneumonia and treatment is designed to merely call attention to the subject and its importance.

[II.]

IRIS VERSICOLOR—BLUE FLAG.

BY I. J. M. GOSS, M. D., LL. D., MARIETTA, GA.

MEDICAL PROPERTIES.—All the old works on materia medica class iris as an alterative; but that does not do justice to it, as it possesses other very positive effects upon the system. It does have specific affinity for certain glands, as the liver, pancreas, gastric glands and the skin. It has the peculiar power to change the secretions of glands from an alkaline to an acid character; and where the gastric fluid is alkaline, and a dyspeptic condition exists from that abnormal condition, iris is one of our most reliable remedies; this I have tested frequently. In duodenal dyspepsia, from deficient action of the liver and pancreas, we have a direct remedy in iris versicolor. It has an affinity for the skin, and has cured psoriasis, pustular eruptions upon the head and face, as tinea, prurigo, crusta lactea, eczema and other like affections. Some writers think that it is an antisymphilitic, and it probably does act upon some tertia forms of that disease.

In that depraved condition of the digestive tract of children giving rise to summer diarrhoea and sour vomiting, with green discharges, iris will always prove serviceable. Its action in such conditions seems to be in its power to arrest the formation of the abnormal acid, and restore the secretion of the normal one of the gastric fluid; and this property is not possessed by many articles. And this peculiar power over the secretions of the digestive tract renders it one of our most trustworthy remedies in many cases of indigestion. It is one of our most reliable remedies in sick-headache, from excess of acidity of the stomach, and acidity is the most common cause of this most painful affection. It is a specific for frontal headache of the right side. I have tested it thoroughly in this form of sick or nervous headache, if given in small and repeated doses, say from 2 to 5 drops every hour. It also is curative of facial neuralgia, from an acid condition of the stomach. In stomatitis, from acid in the stomach, it acts with equal certainty. It acts upon the whole gastro-intestinal mucous membrane and its glandular apparatus, and hence, is ca-

pable of a wide range of curative action; but has hitherto been used mostly in large doses, in which case it proved purgative—that is, toxic. Its action upon the glands resembles that of mercury, only it does not produce any effects upon the osseous system. It produces salivation when given in overdoses, but it soon passes off when it is discontinued.—*Extract from Prof. Goss' Materia Medica, which see for botanical description, etc.*

[III.]

DIPHTHERIA.

BY PROF. N. P. PEARSON, M. D.

It was in the fall of 1859 that I first saw diphtheria in Chicago, after having practiced here about five years. We had, at first, a great deal of trouble in finding a good treatment for it, and I used, with some success, the muriatic acid, until I finally found in the combination of Tr. ferri muriat. with chlorat. potass. a most excellent remedy for it. I believed, at that time, in nosological forms and names, and really thought that I had become acquainted with a grand specific remedy for diphtheria, and especially as it for several years acted with constant success, when given in reasonable time, and I would scarcely believe any report contrary to it. After I learned specific medication, and my eyes became more opened to the treachery of nosological forms and the constant failure in building the theory on such a slippery basis, I soon also met with cases of diphtheria where my supposed infallible remedy proved to be of no avail at all, and where I then found cuprum indicated, and succeeded with this as I had before with the former one. Last fall, the report came of a very fatal diphtheria, and it also appeared here. It was obvious that it was different from former epidemics, and the grayish complexion of the patient, the redness of the gums, the clear, light-colored and acid urine, the peculiar, torpid appearance of the "membrane," pointed all to cuprum—which the use of it did not disappoint.

In one family of five, all grown, intelligent, American persons, I got a splendid chance to ascertain it more positively. They

had the disease rather severely—the first one, especially; two of them came in from the country to nurse her, but became soon infected themselves with it, in spite of all disinfectants. Their throats were penciled and gargled with carbolic acid, Tr. ferr. mur., quinia, nitr., arg., chlor. potass., etc., early and late, and yet they all caught the diphtheria, except the old father, who stayed entirely away from the patients, in another room.

It is still undecided whether diphtheria commences first locally in the throat or in the blood, and Lewis Smith expresses the opinion that it may commence both ways. In the present cases, it undoubtedly appeared to have commenced in the blood—probably through inhalation; and the necessity of using either ferrum or cuprum leads us to acknowledge diphtheria as a constitutional affection. I also tried internally, here, the use of sulphite of soda, Tr. ferr. and chlorat. potass. and quinia, which gave no satisfaction at all; but when I gave Tr. cupri acet. 3j aq. font. ʒ v, aqua cinnamon mucilage acacia aa. s., one tablespoonful every hour, they all pointed to it as the remedy, and improved instantly. They also noticed great benefit from having their throats penciled with permanganat. potass. gr. v., x, aqua destillata ʒii. In this epidemic, the disease easily also sneaked into the larynx; but the same treatment, combined with the inhalation of lime-water, succeeded beautifully, even in some desperate and given-up cases.

I was also once called to a boy on Miller street, who suffered from what in Kunze's text-book on practice of medicine is described as "Ludvig's inflammation of the cervical connective tissue," and said to occur during epidemics of diphtheria. The cuprum showed here, too, most decidedly its healing power as the epidemic or favorite remedy. In all my practice, I have only seen diphtheria in its asthenic character, and always succeeded promptly with ferrum or cuprum, and rarely penciled; but found it very important to discriminate between their indications; and only when I should find this very uncertain and the help very urgent, I might combine the Tr. ferr. with Tr. cupr. acet.

[IV.]

ALLEN'S METHOD IN DISLOCATIONS OF THE HIP—ANOTHER CASE.

BY A. F. KINNE, M. D.

Since Bigelow's monograph "upon the mechanism of the hip-joint" was written, there would seem to be rational ground for the hope that the old method of reducing dislocations of that joint by extension and counter-extension in the line of the patient's body, will be finally laid aside.

But the new method by manipulation, has not, perhaps, been carried to perfection even now. There would seem to be room for a simplification of it, at least.

In the *Ohio Medical and Surgical Journal*, for October, 1877, there is a report of four or five cases in point, made by Dr. S. J. Allen, of White River Junction, Vt., who seems to have hit upon the method in question, as long ago as 1841. All Dr. Allen's cases were dislocations upon the dorsum illii. The one which I wish to report here was a displacement into the ischiatic notch, showing, as far as it goes, that the new method is as well adapted to a lodgment of the bone below the tendon of the obturator internus, as above it. But before I proceed to do so, I will insert here, in Dr. Allen's own words, the substance of his very simple procedure, for the benefit of such readers as may not have seen the report. I quote from his second case, page 387.

"After the patient was fully chloroformed, the muscles being thoroughly relaxed, I stepped upon the bed, flexed the leg upon the thigh and the thigh at right angles with the body, and, placing his foot between my legs and my hand beneath the bend of his knee, I lifted the hip well from the bed, and held it immovably in that position less than half a minute, when the head of the thigh bone returned into the socket with a sensible and audible shock."

I was called, August 21, 1878, to see Johnnie M., nearly five years of age, who had been run over by a two-horse wagon loaded with straw. Found him lying upon a bed, where they had placed him, and, both legs being well flexed upon the body, it was plain at a glance, that the left femur was shorter than

its fellow by more than an inch. And a peculiar "knuckle," a little above the middle of its shaft, revealed the existence of a fracture of the shortened thigh at that point.

Was the shortening due to this fracture? A moment's examination showed that it was not. And upon taking hold of the upper fragment, I found that the limb could be neither extended, rotated nor abducted. Its axis was directed upward and inward, diagonally across the front of the body. And it was also inverted—everted, to be exact—for in displacement of the hip backward, inversion with the limb extended becomes eversion when it is strongly flexed upon the body.

Here, then, was not only a fracture but a dislocation also of the same femur. The thigh had been pushed downward and backward out of joint, *after* being strongly flexed upon the body, and the head of the bone was probably now lying, not in the ischiatic notch, but upon the sacro-sciatic ligament below it.

It was not long since the time when this complication of a fracture and a dislocation of the same femur, was regarded as the most difficult possible in the surgery of this bone. Sir Astley Cooper, would have first mended the broken bone, and then, if possible, reduced the luxation, after the lapse of four or five weeks.* But all this is happily now changed, and I think it highly probable that in this case, the luxation might have been reduced by manipulation as taught in recent text-books. But I had seen Dr. Allen's report, and as the leverage to be gained by flexing the leg upon the thigh, must be lost at the point of fracture, the case seemed to be an especially good one, and a new one in some respects, in which to make further trial of the new method.

I gave chloroform, therefore, to the point of complete anæsthesia, this, in some cases at least, being an essential prerequisite to the success of this method. Then passing my right hand from within outward, under the knee of the affected limb, the head of the bone was easily drawn upward into the

*Cooper on Dislocations and Fractures. Boston, 1825, p. 398.

sciatic notch; and the displacement was then simply ischiatic, or dorsal below the tendon. The shortening was then nearly gone and the mobility of the joint much improved. Continuing the same procedure, I then carried the thigh to a perpendicular, and, holding the leg in a line parallel with the axis of the body, made gentle extension upward. In less than half a minute, and before I had used quite force enough to raise the little hips from the bed, the head of the bone began to glide upward, the pelvis, at the same time, rotating outward; and, as soon as abduction enough was thus indirectly secured, it rotated into the acetabulum with that peculiar shock, both sensible and audible, which every surgeon so well knows how to appreciate. And thus, before the bystanders knew what was the matter, I had reduced an ischiatic luxation of the hip with one hand.

Of course, it must be admitted, that Dr. Allen's method, when he first began to practice it, was empirical. And so indeed, originally, was the method by manipulation also. But a better understanding of the mechanism of this joint, has shown that both these methods are thoroughly scientific and rational; and that the principles involved in both are essentially the same; the only difference being, that, by Dr. Allen's method, abduction is obtained by permitting the pelvis to rotate outward, away from the thigh, and that eversion of the thigh is secured beforehand (or inversion corrected) by holding the leg parallel with the axis of the body.

Upon taking off the pants in order to dress the fracture, the track of the wheel was very distinct; it did not seem difficult to see, also, how the thigh had been both broken and dislocated. The broken thigh showed no marks of external violence, and must have been drawn up out of the way. The right leg being extended, the wheel seems to have passed over the front of the body in the line of the right groin, and just below the scrotum and penis, which were very small and closely retracted. There was a small quantity of feces in the pants and the anus was patulous and bloody, indicative of the pressure to which that part of the body has been subjected. And the surgical lesions would seem to have been caused by the hub

or some other part of the passing wheel impinging upon the flexed knee in the direction of the shaft of the femur.

YPSILANTI, September, 1878.

DISEASES OF THE HEAD.

[Excerpts from Prof. I. J. M. Goss' Manuscripts of the Practice of Medicine, now Preparing.]

ANÆMIA.

An abnormal quantity of blood within the brain ; a deficiency of that fluid, or a deficiency of arterial blood in particular, leads to anæmia of the brain. Upon examination, the grayish substance appears paler, or nearly white. When cut into, few clots, if any, are seen as in the normal state of the brain. Very frequently the blood-vessels appear empty ; and, in most cases, an increased quantity of serum will be found between the sub-arachnoid spaces. This condition is caused by such influences as bring on general anæmia, as blood-letting, hemorrhages, loss of vitality by diarrhoea, starvation and debilitating diseases, by cutting off the supply of vital fluids, compression of the carotids and vertebral arteries, by tumors or emboli, which prevent the flow of blood to the head. This condition of the brain may be known by slow breathing, loss of consciousness (in bad cases), dilated pupils and sometimes paralysis or convulsions. As this condition advances, there may be headache, sensitiveness to light and to sound, flickering before the eyes, vertigo, and noises in the ears. In some cases, there is high excitability, sleepiness, etc. In some extreme cases, there is delirium ; and in some cases even rage ; and the pupils are insensible to light ; the pulse is frequent and small.

Treatment.—If there is general anæmia, we should meet this condition by food and medicines. And if the heart's impulse is very feeble, we should enjoin complete rest in a horizontal position. As regards the medical treatment, that must depend upon the case. If this condition depend upon exhaustion by previous diarrhoea or hemorrhage, in addition to good diet, we should give arsenic and iron, alternated with the fluid extract of bark and nux vomica. I usually give 5 drops of

the tincture of *nux vomica* and 30 drops of the fluid extract of bark every four hours, alternated with arseniate of iron in doses of the one-twentieth of a grain three times a day. In cases where there is delirium in consequence of great loss of blood, 5-drop doses of Ignatius' bean, every three hours, alternated with the arseniate of copper, in the one-fiftieth grain doses, or the arseniate of iron in the one-twentieth grain doses, three times a day. If there are convulsions, in consequence of the loss of blood, Ignatius' bean, or *nux vomica*, alternated with tincture of *pulsatilla*, in 5-drop doses, every four hours, will aid in the removal of this condition.

HYPERÆMIA OF THE BRAIN.

In congestion of the brain, rush of blood to the brain, or stagnation of blood in the brain, the vessels and sinuses are filled with blood; the gray substance appears darker, and the white substance of the brain presents a reddish hue. In chronic cases, the blood-vessels are generally dilated, and not infrequently the substance of the brain is atrophied, and the subarachnoid spaces are filled with blood.

Causes.—Congestion occurs from obstruction to the flow of blood to the other parts of the body, whereby it is diverted to the head. This is often the case in contraction of the capillaries of the skin, especially in the chilly stage of fevers; and in the suppression of the menstrual flow in females, and in the sudden suppression of hemorrhoidal discharges. This condition often occurs from dilatation of the capillaries within the brain, generally the result of the use of opium, tobacco and alcoholic drinks. Stagnation of blood in the brain may result from compression of the jugular veins from strangulation, goitre, glandular tumors in the neck, or by aneurism of the aorta pressing upon the descending vena cava. And it frequently results from valvular disease of the heart.

Symptoms.—One of the first symptoms is headache, sensitiveness to light or flickering before the eyes, ringing in the ears; then pain and formication in the flesh; restlessness, jerking of the limbs, grating of the teeth, finally, convulsions or dizziness, hallucinations, and sleeplessness and frightful

dreams. In some cases, there will be partial paralysis, or a heavy feeling in the limbs, dilated pupils, frequent pulse, slow respiration, and, in some cases, vomiting.

Treatment.—Belladonna is one of the most positive remedies in the forming stage of this condition of the brain, when it occurs from relaxation of the capillaries of the brain, from opium, tobacco or alcoholic drinks. If the circulation be feeble to the skin and extremities, and the pulse be quick, small and compressible, then aconite should be alternated with belladonna. I usually give from $\frac{1}{2}$ to 1 drop of aconite every hour, and about 2 drops of belladonna every alternate hour. If the face be hot and red, and there is a comatose or drowsy condition, then gelsemium in 10-drop doses, every hour, will remove this condition. If the patient be anæmic, as may be the case sometimes, then iron should be alternated with the other indicated remedies. If there is delirium, then hyoscyamus, in 10-drop doses may be given every two hours; or if there is mania, stramonium is the remedy.

APOPLEXY.

This is one of the grave diseases of the brain, consisting, generally, of hemorrhage of the brain and extravasation of blood within the cranium. There are some cases of apoplexy that originate from mere congestion or an overloaded condition of the vessels of the brain; but hemorrhagic or sanguineous apoplexy is the most frequent form. Various causes exist for this condition: first, a rupture of a vessel, and the extravasation of blood therefrom upon the brain; or, second, from great distension of the vessels of the brain, from the use of alcoholic drinks. It may approach gradually or suddenly. It is not uncommon for the patient to fall suddenly, at once bereft of motion and consciousness. But there may be some premonitions, as headache; giddiness on stooping; fullness of the blood-vessels of the head; epistaxis; sleepiness, with very heavy respiration; more or less dimness of vision; deafness, or noises in the ears; flashes, motes before the eyes; vomiting; numbness or tingling in the hands and feet; partial paralysis; drowsiness, gradually increasing to coma. This

disease is more apt to attack the old than the young, simply because, where there is an inherent tendency to it, in advanced life there is tissue-depravation, etc. In old age, the cerebral arteries are often diseased, especially in the intemperate; consequently, this disease is a natural result of intemperance.

Treatment.—If the patient can be seen in time, that is, in the premonitory stage, and the pulse is quick, skin dry and hot, aconite will often modify it, or entirely ward it off; it may be given in drop doses, every hour or two. After the attack, and the face is red and swollen, and the pupils are dilated, suppression, or an involuntary discharge of urine, belladonna is one of our most trustworthy remedies. It should be given in five-drop doses, every two hours, or in two-drop doses every hour.

A patient that has once been attacked should be treated with a view to prevent a second attack. Nux vomica, in doses of three to five drops, three times a day, alternated with the phosphide of zinc, are remedies that promise success; the zinc phosphide may be given in 1-10-grain doses, three times a day. Zinc has an affinity for the brain, especially its connective tissue; and the phosphorus has an affinity for the arteries, and prevents the calcareous degeneration of these vessels; hence, this combination has proven to be a very potent remedy in this disease. I have treated two cases in the premonitory stage, both having extreme vertigo and nervousness; and both got well under the use of the phos. zin. and nux vomica alternated.

HYDROCEPHALUS ACUTUS MENINGITIS TUBERCULOSIS.

This is an inflammation of the pia mater, which results in serous-tubercular exudation, causing softening of the adjacent parts of the organ. It most generally attacks that portion of the pia mater which lines the ventricles; but in some cases the inflammation is seated upon the base of the brain, which is basilar meningitis. It mostly attacks children between the ages of one and ten years, during their dentition; and it

almost always attacks those of a scrofulous or tubercular diathesis, yet it sometimes occurs in those of apparently sound constitution.

Symptoms.—Among the most characteristic symptoms are the following: First—headache; great sensitiveness to light and noise; grating of the teeth; starting in sleep; jerking of the muscles; vomiting; constipation; hardness of the bowels; contracted pupils; hard, quick pulse, and after a few days, when exudation has taken place, the child may occasionally utter piercing cries. The head is now bent backward, and lolled from side to side; and in this stage, convulsions frequently occur, and the child throws the hands to the head, and the eyes are insensible to light and not unfrequently squint; the pulse becomes slow, and respiration becomes very slow and irregular; the face is first pale, then red; the fontanelles, when not closed, now protrude. This condition may continue for ten or twelve days, when the skin becomes drenched in a profuse perspiration, the abdomen bloated, and the stools and urine pass off involuntarily; an ominous rattling in the chest takes place, which announces death approaching. Basilar meningitis is characterized by a contraction of the muscles of the nape of the neck.

Treatment.—In the stage of irritation—the forming stage—aconite, in drop doses, should be given every hour; this will very materially modify the attack, and often cut it short. If the face is hot and very red, then belladonna should be alternated with aconite, in doses of two or three drops, according to the age of the patient. In the advanced stage, when the child grits its teeth, or when there are convulsions, stupor, great fever-heat, bending back or rolling of the head, or inability to hold up the head, emission of scanty, milky urine, trembling of the limbs, and irregular, slow pulse, then tinct. of apis mel. should be given. If the child be of a scrofulous diathesis and is teething, then tinct. of phosphorus should be given, in drop doses, three times a day. When the eyes are very sensitive to light, phosphide of zinc, in doses of 1-20 grain, should be given three times a day, with 5 drops of apocynum cannabinum.

MENINGITIS CEREBRO-SPINALIS EPIDEMICA—SPOTTED FEVER.

This is a violent inflammation of the pia mater of the brain and spinal cord, resulting in an exudation of purulent matter. It is found chiefly at the base of the cerebrum, about the pons, the optic nerves and the medulla oblongata; in the spinal cord it is found about the dorsal and lumbar vertebræ. The brain is generally found swollen or dry; sometimes, there are small parts of the brain found softened, more or less. It prevailed in the southern part of France in the year 1837; then, later, in Spain, Italy, Ireland, Germany; and, in 1848, it invaded Alabama, Missouri and Arkansas, and, in 1850 and 1851, it prevailed in Massachusetts and New York; then, a few years ago, it visited Pennsylvania, Georgia and several other States. It is an epidemic disease, and, most generally, confined to children and young persons, but attacks some old people. Its cause is not certainly known, but, like other epidemics, it is caused from a peculiar condition of the atmosphere.

Symptoms.—It is frequently preceded by some indisposition, then a chill, which is followed by fever, aching of the limbs, stupor, and, sometimes, convulsions, contraction of the muscles of the neck, with purple spots on the body.

Treatment of Cerebro-Spinal Meningitis.—In the forming stage, there is no remedy equal to aconite, in small, but frequently-repeated, doses—say of one-half drop every half-hour. If there is headache, dilated pupils, double sight or delirium, then belladonna shall be used in alternation with aconite—say two to three drops every two hours, or one drop every hour. Where the neck is drawn back or to one side, gelsemium, in doses to suit the age of the child, should be given every two hours. If the patient is in his or her senses, and there is violent headache, great pain in the limbs and joints, then bryonia will do good service; and, if it fail, and the headache become intense and throb at every pulsation, and there be tonic or clonic spasms, then cimicifuga racemosa, in five-drop doses every three hours, should be given. In the latter stage, if there is great prostration of the vital powers, then the sulphate of cinchona should be given to tone up the nervous system. In some cases, where there is delirium or convul-

sions, hyoscyamus, in small doses, will do good service. If there is great stupor, spasms, drawing of the neck backward, and the gelsemium does not relieve this condition, then small doses of opium may be given, sometimes with good effect.

The above is the most trustworthy treatment known to me.

SPASMS OR CONVULSIONS.

Spasms or convulsions do not always indicate cerebral disturbances, but may originate at the periphery, as well as at the center, of the nervous system. If spasms affect single limbs or muscles, they are simple; but if they affect all the muscles of the body, then they are called convulsions. If they consist in an alternate contraction and relaxation of the extensors, they are called clonic spasms; but if they continue uninterruptedly for a long time, they are called tonic spasms. If they occur only in one side, accompanied by a loss of all consciousness, they originate in the brain, and follow injuries of the head or diseases of the brain. And if spasms attack the muscles of the neck, causing contraction of the nape of the neck, they denote basilar meningitis—a grave form of the disease.

Epilepsy is a peculiar form of spasms, and frequently attacks older people. As soon as the attack sets in, the face becomes red and turgid, the body is convulsed, and the patient becomes insensible for one or two minutes, when the convulsions begin to decline, and he is relieved in eight or ten minutes, though sometimes they continue for twenty-four hours. About the nature of this disease, but little is known.

Treatment.—No positive cure is, as yet, known. The bromides mitigate it, and sometimes cure the disease; but it is often incurable. Bromide of lithia modifies the attacks very promptly.

ADDRESS,

BY PROF. E. M. READING, A. M., M. D., AT THE COMMENCEMENT OF BENNETT COLLEGE OF ECLECTIC MEDICINE AND SURGERY, AT
HERSHEY HALL, MARCH 27, 1873.

Says Lawrence Sterne, who lived in the early part of last century: "I was ill of an epidemic, vile fever, which killed

hundreds about me. The physicians here are the errantest charlatans in Europe, or the most ignorant of all pretending fools. I withdrew what was left of me out of their hands, and recommended myself entirely to Dame Nature. She (gentle goddess) has saved me in fifty different pinching bouts, and I begin to have a kind of enthusiasm now in her favor and in my own, that one or two more escapes will make me believe I shall leave you all at last by translation, and not by death."

Shakespeare was a noted skeptic in medicine. Throughout his writings, his characters of medical men are represented as of ill-repute, and are everywhere brought into positions of ridicule and disgrace.

Says Napoleon to his physician at St. Helena: "Believe me, we had better leave off all these remedies. Life is a fortress which neither you nor I know anything about. Why, then, throw obstacles in the way of its defense? Its own means are superior to all the apparatus of your laboratories. Corvisart candidly agreed with me that all your filthy mixtures are good for nothing. Medicine is a collection of uncertain prescriptions, the results of which, taken collectively, are more fatal than useful to mankind."

The opinions of such men upon the important subject of medicine are worthy of consideration.

Are we, as a medical fraternity, to abandon the further pursuit of our profession? Are we to discourage those who, from year to year, flock to us to enter upon this as their life-work? Or, if not, must we proceed in a delusion so intricate and subtle that only the most powerful minds are able to detect it?

An analysis of the basis of these opinions will constitute my theme to-night. The lives of these great men span a period of time from the year 1564 to 1821. We are led, then, to a consideration of medicine during this time.

First, was it a science? A science is a collection of general principles, or laws, which depend, primarily, upon the observation of phenomena. Sir Isaac Newton saw the apple fall. The observation of this phenomenon, in the fertile mind of

Newton, led to the law of gravitation. This law, elaborated, explains not only the attraction of all terrestrial objects to mother earth, but also the movements of the heavenly bodies in their orbits. This, with many other laws similarly established, constitutes what we call the science of natural philosophy. So, every science must pass through a period of initiation.

In regard to our own particular science, it will be evident to the thinking mind that, if the practice of medicine be conducted upon a scientific basis, it must rest upon two grand underlying principles.

First, a perfect knowledge of Physiology. We now understand that disease is a lesion of structure or function. It is plain, then, that the normal structure and function must be known, or how can we determine anything in regard to a departure from the normal action? Would we intrust a gun to a smith who never saw a weapon discharged? Exactly so must we understand the workings of the human body; and whatever the treatment may be, if it be not based on physiology, it is empirical and unscientific.

Secondly, we must understand the physiological action of remedial agents. As in the former illustration, the smith may understand the action of the weapon, but, if he be not dextrous in the handling of tools, his attempts at repair will probably fail.

Physiology presupposes a knowledge of anatomy, chemistry and collateral branches. Let us glance, then, at the condition of anatomy a century or two ago.

Progress in anatomy had ever been hampered by superstition. "He that toucheth the dead body of any man shall be unclean seven days," is the Mosaic law. Whatever might have been the reason for this regulation, the Christian world believe that this, with many other Israelitish laws, disappeared at the beginning of the new dispensation. Nevertheless, the remembrance of this, coupled with other superstitions, undoubtedly had its effects.

Galen, in the second century, published a work purporting to treat of anatomy. As there were no dissections, and none

to gainsay, this remained the standard text-book for 1,200 years. At the end of this time, it was proven that "Galen's Anatomy" was a description of monkeys.

Think of it! Even as late as the sixteenth century, the knowledge of human anatomy was so imperfect and inaccurate that the description of a monkey's carcass could not be detected from the anatomy of man. A fine foundation for physiology! Fine prospects for development! As well might we place a novice in the dark with a watch, and expect him to explain the workings of the wheels. With as much propriety might we place the North American savage in charge of a locomotive, and expect him to conduct us safely over broken rails and uneven roadbeds. The machinery of the human body was there, but had never been examined. How could we expect that its workings could be explained?

As for chemistry, it scarcely deserved a name. Many of the elements, indeed, were known, but were known in their elementary character. Vague ideas of the ancients were afloat, such as that of the elementary character of fire, air, earth and water. The body was composed of blood, bile, phlegm and black bile. An altered proportion of these produced an altered condition of the body. But not only was chemistry unknown, but the chemical nature of the physiological actions of the body, *e. g.*, digestion, respiration, assimilation, etc., was not even suspected until the sixteenth century, when Sylvius first advanced the theory. Not that this theory was adopted; not at all! It was only an indefinite suspicion that there might be an analogy between the phenomena of chemistry and the phenomena which take place in the body.

There were other theories. There were those who referred all vital action to simply physical laws. The stomach was simply a grist-mill; the heart only a suction and force pump; the heat of the body was caused by the friction of the particles of blood.

Then again there were those who believed in vital spirits to govern the functions of the body. Each organ was presided over by its own spirit, and did its work, being animated by its ever-present influence.

Here again we turn with wonder at the ignorance of medicine so short a time ago. With an imperfect Anatomy and an unknown Chemistry, how could we expect that from such parents Physiology could be born!

Indeed, we must look further on for the outgrowth of Physiology.

In 1616, Harvey made that discovery which, considering the ignorance of the times, stands out in bold relief, like a candle on the back-ground of night. I refer to the discovery of the circulation of the blood. Anatomical discoveries had paved the way. Never could the circulation have been understood, unless the anatomy of the heart and circulatory system had been studied. This discovery, meeting with the strongest opposition was not adopted for years, and fortunate, indeed, was Harvey that his life was spared long enough to see his work acknowledged. A century later and Haller established the facts which have immortalized his name. He ascribed to the nerves their true function of conveying impressions. Understanding, as we now do, the intimate relation of the nervous system to every function of the body, whether of intellection, motion, or special sensation, we see how futile would have been the attempt to conduct a course of treatment upon a physiological basis, without such knowledge. These two discoveries, with many minor ones, formed the foundation for the science of physiology.

Gradually, within the last century only, have the processes of nutrition, the reproductive process, and the function of the nervous system been more studied and better understood, until we have the physiology of to-day.

Reviewing the facts which have thus far been presented, we can but come to the conclusion, that the first requisite for a scientific practice, could not be fulfilled at the time of the great men whom we have mentioned. Physiology was a nonentity, therefore a course of practice based upon it could not exist.

We now turn to the second requisite, or a knowledge of the action of remedial agents. After what has been said, we shall not expect to find at the time of which we write, any knowledge of the manner in which a drug accomplishes its result,

although this is the point to which we, as physicians of the future, must attain.

The best that we can expect to find is, that a drug was used because it had been ascertained, experimentally, that it *did* accomplish a certain result. In other words, empiricism, pure and simple, was their only rule of practice. Let us see where empiricism had led them. Many of the remedies of to-day were then known and used. Peruvian bark had been introduced into Europe, by the Princess of Cinchon. Rhubarb and senna had come down as a gift from the Arabians. Let us give them credit that they had used the preparations of mercury, and had discovered its deleterious effects on the system, and had abandoned it. Many other drugs, especially those of vegetable origin, were familiar to them. But when we see how all this was counterbalanced by the absolute nonsense of these times, we turn with disgust from our brother practitioners of a hundred years ago. Here is an example: Even as late as the beginning of this century, there was retained in the pharmacopœia a remedy of sixty ingredients, one of which was viper's flesh dried and powdered.

Here is a prescription, a little further back in time, reported by the patient himself: "A cock flayed alive, and boiled with poppy seeds, then pounded in a mortar, and afterward passed through a sieve. There is to be one crawfish in it, and I was gravely told it must be a male one; a female would do me more hurt than good."

Here are the therapeutic effects of a truly valuable prescription—a mixture of gold, silver, sapphires, pearls, etc. "This healeth cold diseases of" the brain, heart and stomach. "It is a medicine proved against tremblings of the heart, fainting, and swooning, the weakness of ye stomach, pensiveness, solitariness. Kings and noblemen have used this for their comfort; it causeth them to be bold-spirited, the body to smell well and engendereth good color." Here is another: "A small young mouse roasted, for restlessness and nervousness in children."

Here is a sure cure for hypochondria: A mixture of adders, bats, angleworms, sucking whelps, ox-bones, marrow and hog's grease."

But even these are not to be compared to the superstition and quackery which then existed. Witness the spectacle of Henry VII, consulting the seer previous to the encounter with Richard III.

Consider the confidence and patronage which Queen Elizabeth bestowed upon one John Dee, the necromancer, whom Queen Mary imprisoned for practicing enchantment against her life.

But an example showing a more wide-spread ignorance and credulity is the belief in the efficacy of the royal touch. See the 1,600 miserable wretches crowded outside the door of Louis XIV, waiting to be healed by the touch of his hand.

Behold the similar sight, over in England, when Queen Anne, on the morn of March 30, 1714, just 165 years ago, stretched forth the all-healing hand upon the 200 gathered before her. Do you think this credulity confined to the lower classes? We may single out from this very number the person of Dr. Samuel Johnson, the celebrated lexicographer.

If this is not enough, listen to the remarks of Jeremy Collier, in his "Ecclesiastical History," concerning the miraculous powers of Edward II.:

"That this prince cured the king's-evil, is beyond dispute. He not only cured it, but transmitted the power of doing so as an hereditary miracle, to all his successors. To dispute this matter of fact is to go to the excess of skepticism, to deny our senses, and to be incredulous even to ridiculousness."

We have thus viewed the condition of our favorite science a century or two ago. We have seen the absence of any true theories, or, what is worse, the presence of many fallacious ones in regard to the physiological actions of the body. We have seen that, though some remedial agents of merit were in use, they were so overpowered by ignorance and beclouded by superstition that their materia medica was little else than a collection of ignorance, filth and witchcraft.

Let us now turn from medicine in the abstract to men. Let us array the older practitioners before us in examination.

It is now generally understood that medicine is one of the learned professions; that its followers are men of literary

attainments and worthy of respect; but we shall find the reverse to be true in former times.

Here is an advertisement clipped from a paper of Shakespeare's time :

"WANTED—In a family who have had bad health, a sober, steady person in the capacity of doctor, surgeon and man-midwife. He must occasionally act as butler, and dress hair and wigs. He will be required, sometimes, to read prayers, and to preach a sermon every Sunday. A good salary will be given."

This shows plainly the social standing of the ordinary practitioner. The fact that surgery had been almost confined to an itinerant class of barbers is well known.

To illustrate still further, we cannot do better than to examine into some circumstances connected with the foundation and early history of the Royal College of Physicians, an institution which now stands unrivaled throughout the world. An extract from its original charter, granted by Henry VIII, reads as follows :

"Before this period, a great multitude of ignorant persons, of which the greater part had no insight into physic, nor into any other kind of learning; some could not even read the Book (meaning the Bible), so far forth that common artificers, as smiths, weavers and women boldly and accustomedly took upon themselves great cures, to the high displeasure of God, the great infamy of the faculty, the grievous hurt, damage and destruction of many of the King's liege people."

Dr. Thomas Linacre was instrumental in obtaining this charter and in founding the College. He was certainly one of the most distinguished physicians of his time. He was Physician to Henry VIII, and to Queen Mary. Five years before his death, he took holy orders.

Now, witness the ignorance and hypocrisy of this noted English physician! He it was who had subscribed to the sentiment that the rabble of doctors had no insight into physic, nor any other kind of learning, and many could not even read the Bible. Long after this, after he had taken holy

orders, he himself read the New Testament for the first time in his life, and was astonished at its doctrines !

Another of the members of the faculty was Dr. Thomas Sydenham, whose name is quite familiar to experts in medical biography. His views may be gleaned from the following anecdote :

One Dr. Sloane, arriving in London, presented a letter of introduction to this distinguished man. The letter spoke in praise of Dr. Sloane's attainments in anatomy, botany, etc.

Says Dr. Sydenham : " Sir, this is all very fine on paper—very fine ; but it won't do. Anatomy ! Botany ! Nonsense ! Why, sir, I know an old woman in Covent Garden who better understands botany ; and, as for anatomy, no doubt my butcher can dissect a joint as well. No, no, young man ; this is all stuff ! You must go to the bedside. It is only there that you can learn disease."

A final proof of the low standing of this royal institution is a fact which not even the *Chicago Times* would dare to allege against our own colleges of the present day. That they sold diplomas will not surprise you much, but that they should dispose of them to any one applying with the proper fee, regardless of whether he were the interested party or not, shocks us a little. An English gentleman, presenting himself to the college with the proper fees, applied for a diploma for one Anglicus Ponto. The money was paid and the sheepskin was granted and duly recorded in the archives of the college. Imagine the consternation of the Professors on learning that Anglicus Ponto was no other than the fine gentleman's pet dog.

But the exhibitions of ignorance were not always so ludicrous as these. I call your attention to a sadder incident. Enter with me into the sick-chamber of that greatest of statesmen, that bravest of warriors, that purest of men, George Washington—a name at whose mention every American heart swells with emotion. Pull aside the curtains of that canopied bed which so many of us have seen this last centennial year. What do we see ? The emaciated form of the Father of his Country approaching the hour of his death. But what is the medical treatment ? See the doctors plunge the knife into the

swelling veins! See the purple stream flow! See them giving the white powder continually, and the result—sixty grains of calomel administered, one gallon of blood withdrawn, all within the brief space of twelve hours, and death. Yes, the blood of thousands cries from their graves against their murderers with the shining lancets. And what is the excuse? Ignorance!

The distorted features and disfigured forms of thousands more cry vengeance against their maimers with the deadly mercury. And what is the excuse? Ignorance!

What wonder that the noble Washington cries out in his anguish, "Let me die in peace."

What wonder that the great Napoleon, in these words, consents to the treatment of his physician, "Not that I expect the least benefit from it, but my end is approaching, and I am desirous of showing, by my resignation, my gratitude for your care and attention."

What wonder that the immortal Shakespeare "throws physic to the dogs." What wonder, I say. Let me place this audience back in time 100 years. With these startling facts before you, would not you, too, commend yourselves to the gentle goddess, Dame Nature?

Medicine, as a *science*, was a ghost, a specter—the mere image of something to which there was no substance. It was a farce, the ludicrous representation of what is calculated to be the noblest of sciences. But medicine as an *art* was a sad reality—one which Stearn, Shakespeare and Napoleon knew full well. It was a tragedy, which frequently ended as other tragedies, in death.

But I cannot close my remarks with such a gloomy picture before you. Let us be thankful that we live in an age of progress. Never have such rapid strides been made as in the last half-century; never so fast as in the last decade. The anatomy of to-day, descriptive and surgical, is almost as exact as a mathematical problem. Physiology, though just begun, is still strong enough to lead the inquiring follower in paths of truth and comfort. Remedies are better known and their action better understood.

Medicine is assuming the shape of a true science. There are those who to-day claim that our profession is nothing more than a well-developed empiricism. They say that owing to the complexity and profundity of nature's laws in the body, the human eye can never ferret them out. With such I differ. He who to-day holds such a belief, simply exhibits his ignorance, and shows that his opinions are founded on the practice of antiquity. Look at the men of our profession as a class in these times. Are they men of ignorance and superstition? Are they men who would be satisfied with an experiment without investigating into the cause? I tell you No! The medical fraternity of to-day rivals the scientists of every other class in investigation and discovery, and our science is palpably affected thereby. A thousand instances might be mentioned. Why is it that venesection is abandoned? It is because the physiologist now knows that "the blood is the life," and that its withdrawal invites disease and endangers life. Why is it that the use of mercury as a cholagogue is abandoned? Simply because the physiologist has discovered that it exerts no such action.

Again, the therapist says that bromide of potassium constricts the arterioles; the pathologist, that in congestions, the arterioles are larger than normal. We may now reason a priori and say that the remedy should be suited to the disease. The experiment is tried, and it proves a clinical success.

The physiologist now explains that the facial nerve carries impressions of motion from the brain to the face, and has nothing to do with the sense of feeling. Where is the ignoramus who would now sever this nerve, as was the former practice, for the cure of tic-douloureux? Such instances as these are the signs of the times; they show progress unmistakable and undeniable.

Granted that the science of medicine is in its infancy; granted, if you please, that she is yet too weak to raise her head and advocate her own existence; and still I claim that she does live. She is born of truth, and is nourished by investigation. She will grow and govern the action of her followers. Let us become her advocates then; let us hail with delight each new discovery. Let us, especially of our own Eclectic school,

select the good and expunge the bad without party strife and prejudice. Let us use every honest endeavor to establish truth. Then shall we see in medicine a science rounded, complete and symmetrical, a science more beautiful than all others, a science whose aim is grander, a science whose influences are more elevating, and finally, a science which shall inspire the confidence of man, and meet with the approbation of our God.

PERTUSSIS—WHOOING-COUGH.

In from fourteen to twenty-one days after exposure, this disease appears as a slight catarrh. The cough when first observed is dry and hacking, and increases in the same way, without any peculiarity that can be noticed. In from fourteen to twenty-one days from the commencement of the cough, it assumes the spasmodic condition characteristic of the disease. Thus the disease progresses, gradually increasing in severity and frequency of the paroxysms, for about six weeks, when it gradually subsides for the next six weeks, and disappears at the end of twelve weeks from the commencement of the cough.

Treatment.—For the first few days, while the cough is dry, I prescribe for a child two years old—

Tr. Aconitigtt. xv
Syr. Tolutani..... ʒ iij

M. Sig. Dose, a teaspoonful every three hours.

When the spasmodic condition is established I would prescribe for child two years old—

Fl. Ext. Belladonnæ.....gtt. xv
Syr. Assafetidæ..... ʒ iij

M. Sig. Dose, one-half to one teaspoonful every three hours.

After giving one or more doses, you observe the specific effects of the belladonna, enlarged pupils, a flush upon the skin of the face and neck, etc.; discontinue the medicine until the next morning, when you can commence with a smaller dose, one-half or two-thirds of a teaspoonful; so continue to lessen or increase the dose until you can give one every three hours without producing more than the desired effect.

H. K. WHITFORD, M. D.

CHICAGO, April, 1879.

SELECTED.

Chloral as an Anæsthetic for Children.

1. Chloral in sufficiently large doses, always produces in children a profound sleep, approaching to anæsthesia.

2. In incomplete anæsthesia from chloroform, the patient feels the pain and manifests his sensations by cries, as in anæsthesia from chloral; but, while in the first case memory is preserved, in the latter all recollection of what was done is lost, which is of advantage in the case of children.

3. Chloral given in large doses to the latter (2-4 grammes) gives rise to no trouble. In the only fatal case recorded, 5 grammes was given to a child less than three years old.

The necessary doses for anæsthesia are: From 2 to 4 years, 2 grammes; from 4 to 8, 3 grammes; from 8 to 12, 4 grammes. It should be given in one dose while fasting.

4. Sleep comes on very quickly. The operation should be performed about an hour or an hour and a half after the child has fallen to sleep. Five hours is the usual duration of the sleep, during which the respiration and circulation preserve very nearly the normal type.

5. This method of anæsthesia can be advantageously employed for the extraction of teeth, destruction of nævi, application of caustics, opening of abscesses, and for long and painful dressings, as of extensive burns.—*Lyon Medicale.*

Medical Botany.

Of the utility of botany to the medical profession as a body, there can be no more question than of its utter neglect by the great majority of the profession in this country. When we state that very few medical men know anything whatever of the botanical characters of the plants employed in medicine, we state a fact that does not redound to the credit of our profession. It is not so in Europe; it was not so here fifty years ago. In the earlier part of the present century, botany was taught in the medical schools, and

we are mainly indebted to the teachings of those days for our present knowledge of the North American flora. The study of botany gave impetus to original research in the path of therapeutics, as it would unquestionably again if pursued in our medical schools. The works on medical botany, published from thirty to sixty years ago, as, for instance, Barton, Bigelow and Rafinesque, long out of print, and rarely seen, are full of valuable and suggestive information. During the past twenty-five years, no distinctively American work on this subject has appeared, and those of foreign issue have had but limited circulation in this country.

For this neglect of a science at once so valuable and so necessary to medicine, the medical schools are mainly responsible. True, the lecturer on materia medica still glibly runs over the botanical description of a plant whose medicinal action is under consideration, but he speaks in a tongue quite unknown to nineteen-twentieths of the young men before him. The candidate for graduation, is expected to know nothing of botany, and, in truth, he rarely disappoints that expectation.

Is it not about time to change this order of things? If our medical schools are not ready to take such an advanced position as to make some knowledge of botany one of the *requirements* for graduation, will they not at least furnish facilities for its *optional* study? At present, the medical student who has not enjoyed the advantages of a college education, has absolutely no chance to learn anything of the science, except by getting a text-book and working it out himself—a process seldom employed. As generally taught in seminaries and academies—when taught at all—it is made as dull and uninteresting as possible, while it might be made extremely fascinating.

The principles of botany are not difficult of attainment, nor would the average student need to spend a great length of time upon it to enable him to identify most of our medicinal plants.

One objection which may be made to the re-introduction of botany into the medical course—that the student has already more than he can attend to—may be answered as all objections to a higher medical education are—*lengthen the course.*

Another might be urged, which 'tis hardly worth while to answer—that he who wishes to experiment with our medicinal plants can do so as well without a knowledge of their botanical character as with it. The common names of plants are totally unreliable; the same plant being known by perhaps a dozen different names in as many different localities; and, again, plants appearing identical to the casual observer are frequently decidedly different, and possessing widely different qualities. Numerous illustrations might be offered in support of this statement were it deemed necessary.

Were the experiment made of teaching botany, say, in the summer course of lectures, when fresh plants can readily be obtained for demonstration, we are sure the result would be not only gratifying, but valuable. And when we have a body of men duly qualified to experiment with our indigenous plants in the fresh state, conducting their experiments with the accurate methods now in vogue, we shall doubtless see many potent and valuable remedies, now entirely in the hands of Homœopaths, Eclectics and Herbalists, elevated to positions of confidence and esteem in our own materia medica, instead of being briefly described in fine print in the secondary list of the U. S. Dispensatory.—*Medical Record*.

Iodine in Malarial Fever.

As the use of iodine in malarial affections seems to be comparatively unknown, I shall briefly relate my experience with it. During the last four years, I have prescribed it in almost every case of a malarial nature which came under my care. I made no selection of cases, and they embraced all ages and conditions of life. The majority were dispensary patients, and resided chiefly in that section of South Brooklyn known as Gowanus. The severer forms of the disease are not so common in this locality, but many of the cases were serious enough to thoroughly test the efficacy of the treatment. Dr. Fordyce Grinnell, physician to the Wichita Agency, Indian Territory, had doubtless many typical cases in the 147 which

he reports, and he considered the results equal to those obtained from sulphate of quinine.

The routine prescription was five to fifteen minims tincture of iodine, in a wine-glassful of water, three times a day after food. For children, I usually gave about five minims in syrup or glycerine, and to adults seldom more than fifteen minims in plain water. As the simple tincture is not miscible with water, it is necessary to add a little iodide of potash to the mixture; or the compound tincture of iodine may be used, keeping in mind that it has only half the quantity of iodine contained in the simple tincture. In dispensary practice, or where the greatest economy is desired, the compound liquor of iodine may be used, making allowance for the difference in strength. Taken after food, and freely diluted, it is quite palatable, and rarely irritates the stomach—certainly not nearly so often as the ordinary quinine mixtures. It is advisable to warn mothers that if the child does reject a dose, it will cause an ugly stain on the linen.

The results of this treatment in over two hundred cases greatly exceeded my expectations. Though it is impossible to follow up cases so accurately in dispensary as in hospital practice, a large percentage returned sufficient, along with my private patients, to make it certain that the results were not merely *post* but *propter hoc*. In quite a number of cases there was no return of the paroxysm after the commencement of the iodine; and it was seldom necessary to repeat the usual two-ounce mixture (teaspoonful doses). In a few cases, apparently no benefit was derived, and in several, the symptoms returned on stopping the medicine, but left again on its renewal.

Iodine possesses in an eminent degree the antiseptic properties so prominent in those drugs which have been found useful in malarial affections, such as quinine, arsenic, carbolic acid, eucalyptus globulus. This may serve as a hint as to its *modus sperandi*.

There is no novelty in the use of iodine in malarial disease, as it has been used in this country many years ago, and also on the continent of Europe; but it seems to be less known than its merits deserve.

To sum up: Iodine seems to be equally efficacious with quinine in the treatment of intermittent fever; is much more palatable, especially to children; possesses no appreciable bad effects; and is infinitely cheaper—a consideration not to be despised these hard times.—*Wm. Anderson, M. D., in Medical Record.*

Homœopathic Treatment of Tape-Worm.

Every one is acquainted with the fact that a snake is charmed by the sound of soft music; but it remained for a German homœopath to discover that the tape-worm is susceptible of the same influence. So, at least, we are informed by our contemporary, the *Vienna Medical Press*. The inferior orifice of the patient's intestinal canal is placed in communication with a musical-box, which is set a-playing. "We have not long to wait," the homœopathic doctor naively remarks. The tape-worm quickly makes his appearance, head foremost, and winds himself along the connecting-link toward the instrument. The latter is soon embraced in its turn, and the cure complete, for the parasite has, so to say, abstracted himself.—*Med. Ex.*

Action of the *Blatta Orientalis*.

The *blatta orientalis*, or common cockroach, is a popular remedy in Russia. The researches of Bogomolow have given the following results from its employment: The quantity of urine is increased; the quantity of albumen diminished; œdema and ascites disappear; the weight of the body diminishes; the perspiration is generally increased; digestion is not impaired; the kidneys are not irritated. The dose employed was four and a half grains of the powder obtained from the dried insect. These results were confirmed by Unterberger, who employed the drug with great success in scarlatinal albuminuria. M. Koehler has also employed it in thirteen cases of dropsy of various origin. His results were sufficiently conclusive, and show that the *blatta orientalis* really possesses remarkable diuretic powers. Its most interesting action, how-

ever, is its power to cause a rapid disappearance of the albumen from the urine. Hence it is not a simple diuretic, and its true field of action should be sought in Bright's disease. It seems to be entirely innocuous.—*Journal de Med. de Bordeaux.*

Extempore Formula for an Antidote to Arsenic

Dr. James B. McCaw remarked that dialyzed iron is simply a peroxide of iron, and is exceedingly sensitive to oxygen. Hence, on slight exposure to the atmosphere (as when the bottle remains unstopped), it unites with the oxygen of the air, and the solid oxide of iron is formed. He suggests the following formula as one not generally known for an antidote for arsenic, and claims for it precedence over all others; first, because it forms the surest antidote, and secondly, because the agents are almost always accessible—even to the country doctor who carries saddle-bags:

R. Muriate tincture of iron3j.
 Bicarbonate of soda (or potash).....3j.
 Tepid water.....Teacupful.

Mix.—The sesquioxide of iron is immediately formed in a solution of chloride of sodium (common salt). Give this mixture almost *ad libitum*. It is a perfect antidote to arsenic.—*Virginia Med. Monthly.*

The Dry Suture.

Dr. John H. Packard recommends this in closing long wounds. He used strips of Seabury & Johnson's porous plaster, two and a half inches wide and the length of the wound. These are applied on each side of the incision, and then the sides laced together, using the holes in the porous plaster.—*Phil. Med. Times.*

Chloroform.

Death from chloroform need never occur, according to the doctrine of Syme, Lister and Hughes, if this simple rule be observed: "Never mind the pulse, never mind the heart,

leave the pupil to itself. Keep your eye on the breathing; and if it becomes embarrassed to a grave extent, take an artery-forceps and pull the tongue well out." Syme never lost a case from chloroform, although he gave it 5,000 times. This simple rule enabled him (so he thought) to make this excellent record.—*Lancet*.

Ununited Fracture.

An hypodermic injection of glacial acetic acid (M. v.-x.) between the ununited ends of the bone is highly recommended by Mr. Fitzgerald, Surgeon to the Melbourne Hospital, in the treatment of *ununited fractures*. At first, it is attended by very sharp pain; this rapidly subsides. In this surgeon's hands, this treatment has been uniformly successful.

Ergotine Hypodermics in Epistaxis.

Dr. Porak (*La Tribune Medicale*) cites three cases of obstinate nasal hemorrhage, each of which was promptly arrested by a single hypodermic of ergotine. His formula was; Bonjean's ergotine, 2,000 gmm.; glycerine, 30,000 gmm. M. 20 drops hypodermically in the lip or cheek.

EDITORIALS.

COMMENCEMENT EXERCISES.

The Commencement exercises of Bennett Eclectic College occurred Thursday evening, March 27, in Hershey Hall, in the presence of a large audience. The evening's entertainment was highly interesting to the lay friends of the College as well as the long line of familiar faces who were the recipients of the honors of the College.

PROGRAMME:

Overture,	.	.	.	.	Prof. Wood.
Prayer,	.	.	.	.	Rev. W. H. Rider.
Music,	.	.	.	.	Chicago Quartette.
Report of the Dean,	.	.	.	.	Prof. Milton Jay, M. D.

Conferring Degrees, by President, Prof. A. L. Clark, M. D.	
Music,	Chicago Quartette.
Valedictory,	T. B. Stutzman.
Music,	Chicago Quartette.
Address,	Prof. E. M. Reading, M. D.
Music,	Chicago Quartette.
Benediction,	Rev. W. H. Ryder.

The report of the *Dean* of the Faculty (Prof. Milton Jay) contained much that will be interesting to the friends of "Bennett" throughout the country.

The number of students matriculated during the term was one hundred and seven, and the number who had passed the final examinations was twenty-eight. The term had been very successful, and the conduct of the students had been very commendable. During the past term of six months seven hundred and eighty *didactic* lectures had been given. Three hundred and twelve hours had been occupied in *clinical* lectures and examinations of diseases. Ten patients a day, or *fifteen hundred and sixty* in all, had been prescribed for. And since the completion of the "Bennett Hospital," a little more than a year ago, one hundred and thirty-five surgical operations had been performed in the presence of the students.

The opportunities for dissection had been unsurpassed, and the students had spent two or three hours of nearly every evening of the term in the practical study of anatomy. The expense of the dispensary had been borne by the Faculty.

After the reading of the Dean's report, the twenty-eight candidates for the degree took their places before President Clark, who delivered to them a brief address full of excellent advice, and conferred the degree of the College, and presented them with their diplomas. The three ladies in the class received not only diplomas but bouquets and baskets of flowers.

The following are the names of the graduating class:

Brinkhaus, Hugo, Illinois; Brown, Frank P., Indiana; Capron, Emily, Miss, Canada; Courtright, C. O., Illinois; Crowley, D. D., New York; Day, Albert L., Wisconsin; Day, Louisa, Miss, Illinois; Earle, W. Alva, Florida; Edmunds, C. B., Minnesota; Fulliam, E. B., Iowa; Hagerty,

Blair, Jr., Ohio; Holloway, A. L., Indiana; Hyde, M. E. Mrs., Illinois; Jacobson, C. H., Minnesota; Johnson, G. W., Illinois; Leland, K. W., Illinois; Lemker, H. L., Illinois; McCray, J. W., Illinois; Paaren, N. H., Illinois; Pagin, C. J., Iowa; Parker, J. M., Ohio; Stevens, A. E., Iowa; Sedgwick, H. C., Illinois; Stone, J. W., Michigan; Struble, John, Illinois; Stutzman, T. B., Illinois; Turner, D. J., Nebraska; Tucker, H. S., Illinois.

Dr. T. B. Stutzman, of Bloomington, Ill., delivered the Valedictory Address, which was replete with interesting facts pertaining to medicine as a science as distinguished from the empiricism of former days, etc. After which, he addressed his classmates, exhorting them to industry and nobility, and to develop their minds and hearts, and dedicate and consecrate their lives to successful and abundant ministrations in the cause of humanity.

The address on behalf of the Faculty was delivered by Prof. E. M. Reading, which will be found in full in another part of this number of the TIMES. Altogether this, the Eleventh Annual Commencement at "Bennett," was a grand success; and we feel confident that these accessions to the Alumni of the College, will ever be found among the hard workers and successful members of the profession.

PROF. GOSS' EXTRACTS FROM PRACTICE.

During the past year, we published a series of *excerpts* from new *Materia Medica*, written by I. J. M. Goss, M. D., of Marietta, Ga. These articles, by their plain, concise statements of new scientific truths in Therapeutics, attracted the attention of hundreds of TIMES readers, and accomplished much in the way of "stirring up" many old practitioners to undertake the restudy of the *Materia Medica*; to learn more of the modern ideas in reference to Therapeutics. Many thanks are due to Prof. Goss for many pithy sentences contained in these excerpts.

To a large number of physicians throughout the Northwest, who have written us, and requested a continuance of the

excerpts (through this next volume), we are pleased to reply, that we have made arrangements with Prof. Goss, to furnish extracts from his forthcoming work on the principles and practice of medicine.

The first of the series of "extracts" appears in this issue; and judging from this introductory chapter, we infer that the Professor intends that this work shall be mainly composed of *extracts* that are *solid*, and will prove quite interesting to the *busy practitioner*.

DR. POTTER'S NEW WORK.

By referring to the "Book Reviews" in this MEDICAL TIMES, our readers will learn that the book is now ready for delivery, and is "a Compendium of the Principles and Practice of Medicine," which is in all respects what the title implies. It is a full and faithful digest of recorded facts and opinions derived from standard authorities to the *present date*, and entirely unpartisan. A book such as students and physicians need. See advertisement.

THE KANSAS MEDICAL LAW.

As several of our State Legislatures have been considering and enacting laws for the regulation of the practice of medicine and surgery, we present our readers with the full text of "the Kansas law," which contains some new features as compared with the statutes of some of the older States :

AN ACT TO REGULATE THE PRACTICE OF MEDICINE IN THE STATE OF KANSAS.

Be it Enacted by the Legislature of the State of Kansas :

SECTION 1. Every person in this State practicing medicine or surgery in any of its departments shall possess the qualifications required by this act. Every such person shall present his diploma to one of the Boards of Examiners herein named, together with affidavit mentioned in Section 4 of this act. If the Board shall find all the facts required to be stated in said affidavit to be true, the Board of Examiners shall issue

its certificate to that effect, signed by a majority of the members thereof, and sealed with the seal of the Board, and such certificate shall be conclusive as to the rights of the person named therein to practice medicine and surgery in any part of this State.

SEC. 2. The Kansas Medical Society, the Eclectic Medical Society of the State of Kansas, the Homeopathic State Medical Society, corporations organized and existing under and by virtue of the laws of this State, or either of them, and no other corporation, society, person or persons, shall each appoint annually a Board of Examiners, consisting of seven members, who shall hold their office for one year and until their successors shall be chosen and qualified. The Examiners so appointed shall go before some Judge of the District Court or Probate Judge of this State, and make oath that they are graduates of either the Allopathic, Eclectic or Homeopathic Schools, and that they will faithfully perform the duties of their office. Vacancies occurring in the Board of Examiners shall be filled by the Society appointing it by the selection of alternates or otherwise. The Boards of Examiners now organized or existing, or that may be hereafter organized under and by virtue of their appointments by any of the Societies mentioned in this section, shall continue to act as such boards until their successors are appointed at the annual election.

SEC. 3. The Boards of Examiners shall organize within three months after the passage of this act. They shall procure a seal, and receive through their Secretary applications for certificates and examinations. The President of each Board shall have authority to administer oaths, and the Board take testimony in all meetings relating to their duties. They shall issue certificates to all who furnish satisfactory proof of having diplomas or licenses from legally-chartered medical institutions in good standing. They shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the Board. They shall send to the County Clerk of the several counties of this State a list of all persons receiving certificates. In selecting places to hold their meetings, they shall, as far as is

reasonable, accommodate applicants residing in different sections of the State, and due notice shall be published of all their meetings. Certificates shall be signed by all the members of the Board granting them, and shall indicate the Medical Society to which the Board is attached. The Board shall meet within thirty days after application made to its Secretary by any person desiring examination.

SEC. 4. Said Board of Examiners shall examine diplomas as to their genuineness, and if the diploma shall be found genuine as represented, the Secretary of the Board of Examiners shall receive a fee of \$5 from each graduate or licentiate, and no further charge shall be made to the applicant; but if it be found to be fraudulent, or not lawfully owned by the possessor, the Board shall be entitled to charge and collect \$20 of the applicant presenting such diploma. The applicant shall accompany his diploma with an affidavit stating that he is the lawful possessor of the same; that he is the person therein named; that the diploma was procured in the regular course of medical instruction, and without fraud or misrepresentation of any kind, and that the medical institution granting the diploma had, at the time of the granting the same, a full corps of medical instructors, and was at the said time a legally-incorporated institution, actually and in good faith engaged in the business of medical education, and in good standing as a medical institution, and that the applicant has complied with all the requirements of said institution. Such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal. In addition to such affidavit, the Board of Examiners may hear such further testimony as in their discretion they may deem proper to hear as to the verification of any such diploma, or as to the identity of the person named therein, or as to the manner in which any such diploma was procured; and, if it should appear from such testimony that any fact stated in said affidavit is untrue, the application of such person for a certificate shall be rejected. None of said Boards shall entertain an application which has been rejected by another of said Boards, nor shall any rejected

application be renewed until at least one year after the action of the Board rejecting the same.

SEC. 5. All examinations of persons not graduates shall be made directly by the Board, and the certificates given by the Boards shall authorize the persons to practice medicine and surgery in the State of Kansas.

SEC. 6. Every person holding a certificate from a Board of Examiners shall have it recorded in the office of the County Clerk of the county in which he resides, and the recording of the same shall be indorsed thereon. Any person removing to another county to practice, shall procure an indorsement to that effect on the certificate from the County Clerk, and shall record the certificate in like manner in the county to which he removes, and the holder of the certificate shall pay to the County Clerk the usual fees for making the record.

SEC. 7. The County Clerk shall keep in a book provided for that purpose a complete list of the certificates recorded by him, with the date of the issue and the name of the medical society represented by the Board of Examiners issuing them. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The register of the County Clerk shall be open to public inspection during business hours.

SEC. 8. Candidates for examination shall pay a fee of five dollars, in advance. The fees received by the Board shall be paid into the Treasury of the medical society by which the Board shall have been appointed, and the expenses and compensation of the Board shall be subject to arrangement of the society.

SEC. 9. Examinations may be in whole or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 10. Each of said Board of Examiners may from time to time adopt such rules as may be necessary to the orderly conduct of all proceedings taken and had before it. It shall be the duty of the Secretary of the respective

Boards to notify the Secretary of all other Boards provided for under this act of all applicants to whom licenses may have been refused, together with the reasons for such refusal of such Boards.

SEC. 11. Any person shall be regarded as practicing medicine, within the meaning of this act, who shall profess publicly to be a physician, and engage in the practice of medicine, or who shall habitually prescribe for the sick, or who shall append to his name the letters "M. D." But nothing herein contained shall be construed to prohibit gratuitous services. And this act shall not apply to lawfully-commissioned surgeons of the the United States Army or Navy practicing their profession within the limits of this State.

SEC. 12. Any person habitually practicing medicine in this State, without complying with the provisions of this act, shall be punished by a fine of not less than fifty dollars nor more than five hundred dollars, or by imprisonment in the County Jail for a period of not less than thirty days nor more than one year, or by both such fine and imprisonment, for such offense. And any person filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and, upon conviction, shall be subject to such fine and imprisonment as are made and provided for by the statutes of this State for the crime of forgery in the fourth degree; *Provided*, That no person who holds a certificate heretofore granted by either of the societies mentioned in the second section of this act shall be compelled to procure a new certificate, or be liable to any penalty for failing to do so; *And provided further*, That the provisions of this act shall not apply to those persons who have been practicing medicine within this State continually for five years prior to the taking effect of this act. When such persons have submitted proof of such continuous practice as herein provided, a certificate shall be issued to them, as is provided for in Section 3 of this act.

SEC. 13. Any person assuming to act as a member of a Board of Examiners under this act, or who shall sign, or

subscribe, or issue, or cause to be issued, or seal, or cause to be sealed, a certificate authorizing any person to practice medicine or surgery in this State, except the person so acting and doing be appointed by one of the societies mentioned in Section 2 of this act, or be authorized to do so by a Board of Examiners, appointed by one of said societies, shall be deemed guilty of a felony, and shall be punished by a fine of not less than five hundred dollars or by imprisonment in the State Penitentiary for a period of not less than one year, or by both such fine and imprisonment.

SEC. 14. Should either of said Boards issue a certificate to any person whose application for certificate has been previously rejected by another of said Boards within one year after the rejection of said application, then, in such case, the certificate issued as aforesaid to such rejected applicant shall be null and void and of no effect.

SEC. 15. If any person not a graduate or licentiate of medicine has been unable to present himself for examination to any of said Boards as provided in Section 1 of this act, then, in such case, it shall be lawful for either of said Boards, on good cause why said person was unable to present himself for examination within the time limited in the fifth section of this act, to examine such person touching his qualifications to practice medicine or surgery; and if said examination shall be satisfactory to the Board, it shall thereupon issue its certificate in accordance with the facts, and the lawful holder thereof shall be entitled to all the rights and privileges of graduates or licentiates to whom certificates have been issued under this act; but no such examination shall be had after the 1st day of April, 1880. This act shall have no application to any county in this State unless a member or members of one of the Boards provided for in Section 2 of this act duly qualified shall have held a meeting for examination of physicians within said county, nor shall it apply to any lady practicing midwifery.

SEC. 16. Every person who shall willfully and corruptly swear, testify or affirm falsely to any material matter upon any oath or affirmation or declaration legally administered in any matter or proceeding before said Board of Examiners, or either

of them, under the provisions of this act, shall be deemed guilty of perjury.

SEC. 17. This act shall take effect and be in force from and after the 1st day of June, 1879.

Approved February 27, 1879.

INGROWING TOE-NAIL.

Dr. Fanning, in the *Medical Record*, gives what he terms "a most happy plan of treatment" for this painful affection.

He applies a solution of caustic potash, of the strength of 3iii, to water, 3i, twice daily. The granulations soon recede, and then he raises the nail and inserts a wedge-shaped piece of cork. This ends the trouble.

BOOK NOTICES.

A COMPENDIUM OF THE PRINCIPLES AND PRACTICE OF MEDICINE. For the use of students and practitioners. By STEPHEN H. POTTER, M. D., Emeritus Professor of Clinical Medicine in the American Medical College, St. Louis, Mo., etc. Second edition; revised and enlarged.

From the ever-increasing deluge of books that is pouring in upon us from all quarters we may cull out, now and then, one of sufficient merit to deserve a place upon our shelves; occasionally one that we may place in the row with our favorite authors; and very rarely one so plain, concise and practical that we want it ever at hand upon our table.

To this latter class belongs the second edition of Prof. Potter's "Compendium." In a volume of moderate size, the author has conveyed to us, in a compact and tangible form, a vast amount of practical knowledge, derived from a long personal experience; has also given us the cream of the voluminous writings of recognized medical authorities, and has drawn largely from the files of medical periodicals.

The facts derived from these various sources are so arranged and classified, and the divisions of subjects so clearly indicated, that the reader may, in the briefest possible time, arrive at an understanding of almost any subject pertaining to the practice of medicine. To the active physician, who is oftentimes at his

wits' end to know where to look for the facts and suggestions which he feels sure must exist somewhere, scattered through his voluminous treatises, this work will prove an invaluable companion. To the puzzled student, almost overwhelmed by the swift current of medical lectures, it will be a master-helper. Coming from any source, the work should receive our heartiest commendation; but coming as it does from one of the veteran leaders in our school of practice, we are proud to welcome it. To the readers of *THE TIMES* the book is already somewhat familiar, through the various extracts which have appeared, from time to time, during the past year, and, therefore, we need not call attention to the style and plan of the work. We cannot forbear, however, to notice one or two points which, in a hasty perusal of the work, have seemed to us of especial merit.

Chapter IV, upon the subject of Symptomatology, classifies symptoms as follows: 1, General, or Constitutional, and Local; 2, Objective and Subjective; 3, Direct, or Idiopathic, and Indirect, or Sympathetic; 4, Premonitory or Precursory; 5, Diagnostic, Prognostic and Therapeutic; 6, Pathognomonic. These are clearly defined, and then the subject is further considered, under the following heads: What we must know of a Patient; How to examine a Patient; Rules for Practitioners. As a whole, this seems to us one of the most valuable chapters in the book.

The concluding chapter, upon Natural Therapeutics, strikes the key-note of rational scientific medicine. We quote a portion of the closing paragraph: "The cardinal rule is: Never severely impress the system, nor employ remedies which can injure it. Support the vital forces through natural therapeutics, rendering whatever auxiliary aid may be afforded by the use of drugs, employing few and simple remedies."

CLINICAL LECTURES ON DISEASES PECULIAR TO WOMEN. By *LOMBE ATTHILL, M. D., etc., etc.* Fifth edition; revised and enlarged, with illustrations. Philadelphia: Lindsay & Blakiston; 1879.

The new edition of this well-known and valuable work will doubtless be a favorite text-book. While it does not pretend to be a complete treatise, or to cover the whole field of gyn-

ecology, it is a valuable compend of the more important and common diseases of women.

AMERICAN HEALTH PRIMERS. Edited by W. W. KREN, M. D., Fellow College Physicians, Philadelphia. A new series soon to be issued by Lindsay & Blakiston, of Philadelphia.

It is one of the chief merits of the medical profession in modern times, that its members are in the forefront of every movement to prevent disease. It is due to them that the science of what has been happily called "preventive medicine" has its existence. Not only in large cities, but in every town and hamlet, the doctor leads in every effort to eradicate the sources of disease. These efforts have been ably seconded by intelligent and public-spirited citizens of many callings. The American Public Health Association and the Social Science Association, with their manifold and most useful influences, are organizations which have sprung from, and still further extend and re-enforce, the efforts to improve the public health.

But the great mass of the public scarcely recognize the importance of such efforts, or, if they do, are ignorant of the facts of anatomy, physiology and hygiene, and of their practical application to the betterment of their health and the prevention of disease. Such knowledge does not come by nature. In most cases, in fact, it is a direct result of the most laborious research and the highest skill. Accordingly, it is the object of this series of American Health Primers to diffuse as widely and as cheaply as possible, among all classes, a knowledge of the elementary facts of preventive medicine, and the bearings and applications of the latest and best researches in every branch of medical and hygienic science. They are not intended (save incidentally) to assist in curing disease, but to teach people how to take care of themselves, their children, their pupils, and their employes.

The series is written from the American standpoint, and with especial reference to our climate, architecture, legislation and modes of life; in all these respects we differ materially from other nations. Sanitary legislation, especially, which in England has made such notable progress, has barely begun with us, and it is hoped that the American Health Primers

may assist in developing a public sentiment favorable to proper sanitary laws, especially in our large cities.

The subjects selected are of vital and practical importance in every-day life. They are treated in as popular a style as is consistent with their nature, technical terms being avoided as far as practicable. Each volume, if the subject calls for it, will be fully illustrated, so that the text may be clearly and readily understood by any one heretofore entirely ignorant of the structure and functions of the body. The authors have been selected with great care, and on account of special fitness, each for his subject, by reason of its previous careful study, either privately or as public teachers.

Dr. W. W. Keen has undertaken the supervision of the series as editor, but it will be understood that he is not responsible for the statements or opinions of the individual authors.

The following volumes are in press and will be issued about once a month:

I. "Hearing, and How to Keep It." By Charles H. Burnett, M. D., of Philadelphia, Surgeon in Charge of the Philadelphia Dispensary for Diseases of the Ear, Aurist to the Presbyterian Hospital, etc.

II. "Long Life, and How to Reach It." By J. G. Richardson, M. D., of Philadelphia, Professor of Hygiene in the University of Pennsylvania, etc.

III. "Sea Air and Sea Bathing." By William S. Forbes, M. D., of Philadelphia, Surgeon to the Episcopal Hospital, etc.

IV. "The Summer and Its Diseases." By James C. Wilson, M. D., of Philadelphia, Lecturer on Physical Diagnosis in Jefferson Medical College, etc.

V. "Eyesight, and How to Care for It." By George C. Harlan, M. D., of Philadelphia, Surgeon to the Wills (Eye) Hospital.

VI. "The Throat and the Voice." By J. Solis Cohen, M. D., of Philadelphia, Lecturer on Diseases of the Throat in Jefferson Medical College.

VII. "The Winter and its Dangers." By Hamilton Osgood, M. D., of Boston, Assistant Editor Boston Medical and Surgical Journal.

VIII. "The Mouth and the Teeth." By J. W. White, M. D., D. D. S., of Philadelphia, Editor of the *Dental Cosmos*.

IX. "Our Homes." By Henry Hartshorne, M. D., of Philadelphia, formerly Professor of Hygiene in the University of Pennsylvania.

X. "The Skin in Health and Disease." By L. D. Bulkley, M. D., of New York, Physician to the Skin Department of the Demilt Dispensary and of the New York Hospital.

XI. "Brainwork and Overwork." By H. C. Wood, Jr., M. D., of Philadelphia, Clinical Professor of Nervous Diseases, University of Pennsylvania, etc.

Other volumes are in preparation, including the following subjects: "Preventable Diseases," "Accidents and Emergencies," "Towns We Live in," "Diet in Health and Disease," "The Art of Nursing," "School and Industrial Hygiene," "Mental Hygiene," etc., etc. They will be 16mo in size, neatly printed on tinted paper, and bound in paper covers. Price, 30 cents; flexible cloth, 50 cents.

LINDSAY & BLAKISTON, Publishers.

SOCIETY MEETINGS.

MEETING OF THE ECLECTIC MEDICAL ASSOCIATION OF KANSAS.

The Eclectic Medical Association of the State of Kansas convened in Odd Fellows' Hall, Topeka, February 19, for the discussion of professional science and the transaction of its annual business. There was a good attendance from all parts of the State.

The following are the officers chosen to serve the Association for the ensuing year: President, R. W. Wright, M. D., of Oswego; First Vice President, L. H. Phillips, M. D., of Olathe; Second Vice President, W. W. Bickford, M. D., of Paola; Third Vice President, R. P. Douglass, M. D., of Burlington; Treasurer, P. I. Mulvane, M. D., Topeka; Recording

and Corresponding Secretary, A. M. Eidson, M. D., of Topeka.

The President assumed the duties of his chair with a neat, practical address to the Association, as they had also been favored by the retiring President, Dr. N. Simmons, of Lawrence.

As an Examining Board and a Board of Censors, the following were selected and qualified: Dr. Mulvane, of Topeka; Dr. Wright, of Oswego; Dr. McMullen, of Burlington; Dr. Simmons, of Lawrence; Dr. Owens, of Wichita; Dr. Beach, of Olathe, and Dr. Grinnell, of Peabody.

As a Revision Board to revise the Constitution, By-Laws and Code of Ethics, and to report at the semi-annual session, the following were appointed: Dr. Mulvane, of Topeka; Dr. Hazleton, of Silver Lake, and Dr. Reed, of Tecumseh.

There were thirteen new admissions to the Association as members by petition and examination by the Censors.

The old members came out well, and all seemed fully interested. Also, letters were received from members and others, from all parts of the State, expressing their regrets at not being able to be present, promising their presence at future meetings, assuring the Association of their heartiest support with pen, purse and presence, if necessary, sending of their annual dues, etc.

Dr. McMullen, as their delegate, presented the printed proceedings and resolutions of the last session of the Coffey County Eclectic Medical Association, which was very practical and full of interest, pledging their heartiest support to the State Association in their endeavors to unite the profession for the advancement of the scientific practice of Eclectic or liberal medication, and to promote friendly relations and good-will among its members.

The following is one of the resolutions adopted:

Resolved, That it seems to us that a portion of the medical men of our State are seeking legislation more to protect themselves in their business, and advance *their* special interests, than for the protection of the people of the State from empiricism (as it is stated) therefore, we, of the Kansas Eclectic Medical

Association, and qualified physicians, wish it understood that we are not seeking or asking for any so-called medical law, believing it will be of no special benefit to the citizens of our State, and that we need no such laws to protect us in our profession. We wish to rely entirely on the intelligence of our people, and our merits as medical gentlemen, for our practice, believing that they are the best judges as to whom they should employ for the relief of their physical infirmities. But if in the wisdom of our legislators they deem it necessary to frame and enact some medical State law, we demand of them to pass no bill unless it does equal justice, and gives equal privileges to the Eclectic profession with all others of the medical profession, and shall oppose all bills and substitutes that have been up to this time presented, except House Bill No. 60, as it was presented by Representative Hodge, as being the most liberal of any of them, which may be made a very satisfactory bill for the profession generally, with a little judicious pruning and amending.

The evening session was entirely consumed in the report of cases, treatment and general discussion on the subject of the science and practice of medicine and surgery, adjourning at a late hour, all feeling that it was good for them to thus have met, wishing such privileges could be oftener enjoyed, and all hoping to meet at the next annual session of the Association at Topeka, Kan., on the second Tuesday of February, 1880, unless sooner called together for the transaction of business by the President and Secretary.

R. W. WRIGHT, M. D., President.

A. M. EIDSON, M. D., Secretary.

MEETING OF THE STATE ECLECTIC MEDICAL AND SURGICAL SOCIETY OF MICHIGAN.

The third annual meeting of this Society will be held in the city of Niles, commencing at 11 o'clock A. M. on Wednesday, May 28, 1879, and will continue in session two days.

Very important matters pertaining to the interests of rational progressive medicine in this State will be considered at this

meeting, and it is hoped that Eclectic and liberal-minded physicians generally throughout the State will make special effort to be present.

Headquarters will be at the Bond House, O. McKay, proprietor, where first-class accommodations will be furnished those in attendance at reduced rates (\$1.50 per day). An effort is being made to secure commutation of railroad fare also to delegates and their wives.

Further particulars furnished by circular in a few days.

P. W. REED, Port Huron, President.

H. S. McMASTER, Secretary.

DOWAGIAC, Mich., April 8, 1879.

THE NATIONAL.

The next annual meeting of the National Eclectic Medical Association will be held at Temperance Hall, 188 Superior street, in the city of Cleveland, Ohio, beginning on Wednesday, June 18, 1879, at 10 o'clock in the morning, and holding for three days.

Each State Society is entitled to fifteen delegates, and local societies to two.

The Ohio State Medical Society will convene at the same place, on the morning of the previous day. Headquarters, the American Hotel, on Superior street.

By the Committee of Arrangements,

A. G. SPRINGSTEEN, M. D.,

7 Garden st., Cleveland.

IOWA.

The twelfth annual meeting of the Iowa State Eclectic Medical Society will be held at the city of Des Moines, Wednesday and Thursday, June 4 and 5, 1879. The efficient officers have arranged an unusually attractive "Programme"—one worthy of the grand cause of Eclecticism in this great State. We hope every Eclectic physician in the State will make an extra effort to be at the June meeting. All who fail to be present will surely regret it afterward.

A CALL.

The undersigned physicians, members of the State Eclectic Medical and Surgical Society, and residents of the Fourth Congressional District of Michigan, would respectfully request all those who, according to the by-laws of the above-named Society, are entitled to co-operate in the organization of an auxiliary district society, to meet with them in the parlors of the Bond House, Niles, Mich., at 7:30 o'clock A. M. on Thursday, May 28, 1879, for the purpose of organizing a District Eclectic Medical Society for this Fourth Congressional District (St. Joseph, Kalamazoo, Cass, Van Buren and Berrien Counties), such society, when organized, to be incorporated under the act of 1877, entitled "An act for the incorporation of Eclectic Medical Societies," and to be auxiliary to the State Society incorporated under the same act.

All residents of the said Fourth Congressional District who may be at the time designated above members of the State Eclectic Medical and Surgical Society of Michigan, and graduates of reputable medical colleges, will be entitled to sit in the Convention, and to become charter members of the Society organized thereby.

H. S. McMASTER, Dowagiac.

A. N. VAN RIPER, Buchanan.

JOHN SALEE, South Haven.

I. R. DUNNING, Benton Harbor.

M. V. B. MCKINNEY, Lawton.

DOWAGIAC, Mich., April 8, 1879.

FOR SALE.

Location in principal city near the central part of Illinois. House and grounds \$2,000 cash and \$1,000 in one or two years (which is about half their cost). One of the best fields for surgery in the State. The physician who wishes to retire has a large practice (of twelve years) which can be transferred to the purchaser, who must be a man possessing energy and good qualifications. Further particulars may be obtained by addressing

WILSON H. DAVIS, M. D.,

Northwest corner State and Madison streets, Chicago.

THE

Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

VOL. XI.

CHICAGO, MAY, 1879.

No. 2.

ORIGINAL COMMUNICATIONS.

[VIII.]

A CASE OF ABSCESS OF THE LIVER.

BY A. L. CLARK, M. D.

July 28, 1878, I was requested to see A. G. S. in consultation with two other physicians. The patient was, by profession, a teacher, between fifty and sixty years of age, and had, some twelve years previously, suffered a severe attack of inflammation of the right lobe of the liver, which had left that organ enlarged, causing the lower ribs upon the right side anteriorly to bulge out considerably. From time to time subsequently, attacks of an inflammatory character, accompanied by severe pain, had been suffered; but, on the whole, the patient had been able to attend to his ordinary duties.

Two months previous to the time of this consultation, an unusually severe attack had been experienced, which refused to terminate as had those preceding, but had gone on with great pain, physical prostration and emaciation. The lower ribs protruded, at the time, to the extent of at least two inches, while just below, and approaching the median line, appeared a slightly-fluctuating protrusion.

Into this the needle of a hypodermic syringe was passed to the depth of an inch, by which means a drop of tenacious pus was removed. The patient was so much delighted with the

ease and painless character of this examination that he seemed to take, aside from his personal welfare, a scientific interest in the next proposed step, which was the use of the aspirator.

By means of a Molesworth aspirator, twelve ounces of clear pus were at once withdrawn, when the bloody character of the discharge caused a discontinuance of the operation. The next day, a similar amount was withdrawn, and so on until within a week fifty-one ounces were taken. From this time on, aspiration was resorted to every four to six days for two or three weeks, the result being the removal of two or three ounces of albuminous semi-transparent fluid. Into the sac were injected, from time to time, various substances, as solutions of sulphate and chloride of zinc, iodide of potassium, etc.

Weeks passed on, and the discharge seemed destined to become a chronic affair. Meantime, under the use of tonic treatment and a nutritious diet, the patient had so far recovered as to begin teaching, and the opening was kept open by a tent of cloth. One morning, upon removing the dressing, as usual, the tent could nowhere be found. Shortly after this, the discharge increased remarkably, assumed a more puriform appearance, and a most disagreeable fecal smell. After some weeks, the patient called at my office to consult with me upon the matter, not, however, mentioning the loss of the tent *eight weeks* before. As throughout the treatment there had appeared a small indurated bunch, which, since this increased suppuration, was for the first decreasing, I advised to let it take its course a few days longer.

The next morning, upon removing the dressing, an increased flow of pus brought with it the long-lost tent! From this time, the discharge ceased rapidly, and disappeared—to re-appear once again for a few days soon after. At the present time, it has not discharged or given any evidence of trouble for the last two months, and the patient appears to be permanently cured.

The use of the hypodermic syringe as a diagnosing aspirator in cases of supposed suppuration, of ovarian or other cysts, and as a means of removing the contents of the strangulated bowel in hernia, where the contents are gaseous or sufficiently

fluid, is not sufficiently appreciated by the mass of the profession.

In almost all cases, it will be found superior to the common exploring-needle, while its delicacy does much to obviate the risk, small though it may be, attendant upon the use of the smallest ordinary aspirator-needle.

[XI.]

RADEMACHER'S SYSTEMIC DISEASES.

BY PROF. N. P. PEARSON.

Is it not strange that the "Regulars," for centuries, have worked with the most indefatigable zeal to find constant remedies for their nosological forms, and never yet succeeded in finding a single one? And still they roll the stone of Sisyphus, and, in spite of this constant failure, they are very proud of their system, and ever ready to condemn, *a priori*, any sincere physician who tries to find another road in their wilderness of therapeutics. When we read carefully through their text-books, we find only a blundering empiricism, gilt-edged with modern physiology and pathology. New remedies is the daily cry, and the mountains and forests of distant regions are searched through to find such. Many old and well-reputed remedies are thrown away as obsolete. The old antiphlogistic is not so much in vogue as of yore, but one antiseptic remedy after another is nowadays discovered to destroy the supposed parasitical germ of many diseases. In open wounds, I am ready to acknowledge their beneficial action, but, inside the circulation, I consider their antiseptic action very problematic or doubtful.

Experienced physicians have long ago recognized two principal conditions of the entire organism, which have been called *sthenia* (strength) and *asthenia* (weakness), and, in apparently the same disease, these required special attendance and often great difference in medication for successful treatment. Erichson, in his celebrated text-book of surgery, says: "It is the type that is affected by this constitutional disturbance, its *sthenic* or its *adynamic* character, as indicated by the pulse and the

tongue, and not the mere diagnosis of the local, that must guide the surgeon." In inflammation, he discriminates between three main kinds: "(1) Sthenic, (2) asthenic and (3) that with irritative fever. In all three, there may be the same redness, swelling, heat and pain, and the treatment yet entirely different." Fothergill, in his excellent "Hand-Book of Treatment," coincides perfectly with him, and insists on having his words "printed distinctly on the brain-cells of the medical student." It has sometimes appeared to me that there might be four different conditions of the entire organism in diseases, namely, nervous, hematic, sthenic and asthenic; but Rademacher, in all his searching, could only find three, although admitting the possibility of more, and these corresponded to the three Paracelsic Universalia: Nitræs sodæ, Ferrum and Cuprum, or the sedative, tonic and stimulant principle of general treatment, and he adopted, from Paracelsus or from a pure therapeutical point of view to designate these conditions, Saltpeter, Iron and Copper diseases. Some superficial readers have complained that he gave scarcely any indication for them; but he and his followers give better indications than we find anywhere else; and I must complain that our common textbooks pay too little attention to this important matter in the right way, for many and fatal mistakes are frequently made from lack of exact discrimination in this respect. Pneumonia has too often been treated with the lancet and other antiphlogistics, when tonics and stimulants were required; puerperal fever with turpentine, when nitræs sodæ should probably have been given; diphtheria with iron, instead of cuprum; dysentery dragged along with astringents and opiates, when nitrate of soda might instantly relieve; rheumatic or scarlet fever followed by their bad and sad consequences in a similar way, etc.

In the physiology, we learn that in the capillaries is the great "workshop" for the tissue-change, nutrition, secretion, excretion, etc. We may, then, in diseases here find either an excess of nutritive material or too energetic vital state (1) which we may call *active Plethora*, or *Sthenia*, or (2) a deficiency of nutritive material, called *Anæmia*, or (3) an impaired

innervation, or some defect of the capillary wall, which I think it best to call *Adynamia*. These three conditions constitute the main idiopathic lesions of the blood or the entire organism in diseases, and, when skillfully attended to, certainly influence the treatment, whether the disease is epidemic or not. They correspond, also, with the sedative, tonic and stimulant principle of our constitutional treatment.

Such a state of the entire organism may be caused in the following way : (1) It may be *congenital*, or depending on certain *age* or *constitution*, youth, or a robust state disposes to active plethora, while old age or feeble constitution to asthenia. (2) It may be *acquired* by overfeeding or overwork, loss of substance, deficient food or hygiene. (3) We find, besides, that the morbid agency of many diseases develops a similar change of the entire organism. We meet thus the same disease, at different times, very differently constituted, and see the most opposite remedies recommended by skillful and trustworthy physicians for zymotic diseases; some diatheses, as rheumatism, and some more locally appearing diseases, as pneumonia, croup, pleuritis, angina, etc., assuming the conditions of sthenic and asthenic, epidemically, which have been designated inflammatory, anæmic, septic or malignant types of said diseases, requiring a special attention for successful treatment. Every smart and experienced physician is well aware of this great and important difference. The real nature of the morbid matter we have not yet reached, either by chemistry or by microscope, and may never find it out exactly; and none of the entire series of antiseptics have ever given any constant satisfaction.

In the specific medication of Rademacher, we lay a great stress on the above-mentioned three conditions, and have always derived therefrom, in a harmless and safe way, a certain, plain and visible benefit : (1) We radically shorten the spontaneous course of the disease; (2) prevent, frequently, exudation; (3) or, when this has already occurred, promote and accelerate the resolution or elimination of it; (4) thus investigate the symptoms of the course; (5) prevent sequelæ, or consecutive disorders; (6) diminish the mortality, and (7) may

heal perfectly the complications. This cannot be done with the old, hazardous, symptomatic treatment of the Allopaths.

Instead of Nitras sodæ, we may employ the kindred remedies, as sulphite, sulpho-carbolate, salicylate of soda, and many other similar salts; veratrum, the lancet, mercury, weaken the system; also purgatives, emetics, diaphoretics, or withdrawal of food, etc. Kindred to Ferrum are the other tonics and astringents and to Cuprum, alcoholic liquors, ether, camphor, musks, balsams, etc. But the physicians of the Rademacher school all agree to prefer Nitras sodæ, Ferrum and Cuprum, because they act, not alone epidemically, as has been erroneously stated, with such promptness and purity that they in obscure cases may be used as re-agents, and next day, in a harmless way, tell us which had to be given, which also rules for the following cases in the same epidemic. They also "tell" us, when their healing action, after a while, ceases, that there is some local complication outside the capillaries, in some tissue, which, frequently, is the epidemical affection of the liver or kidneys, sometimes of the brain or spleen, etc., which a closer investigation also may confirm. When no benefit at all is derived from any of them, it is a certain hint that there is no disease of the blood itself present; that the illness has started from some tissue outside the blood, and it demands a more local remedy. We have hereby been told, some time ago, what pathology just lately is about finding out, that scrofulosis and syphilis start, principally, in the blood-making organ or the lymphatic system; that measles have a more local origin than scarlatina; that cholera, typhoid fevers, are at first local; also, when erysipelas, dysentery, rheumatism, etc., are systemic or local in their real character, and thus when systemic or local medication will succeed. Their *indications* are given in the general appearance of the patient, *i. e.*, paleness indicates anæmia; grayish-sallow complexion indicates adynamia or cuprum; hard and full pulse, sthenia; nervous disorders, anemia or adynamia; high-colored and acid urine, nitras sodæ; pale and alkaline, ferrum; light-yellowish, acid, clear or turbid from urates, indicates cuprum; and, in dubious cases, their action or inaction will tell us next day which to choose.

These systemic affections *occur* often purely as intercurrent epidemics, but rarely as pandemic diseases. I have only seen "saltpeter diseases," as such, in April and May, 1874, which might have convinced any skeptic, when Nitras sodæ, in apparently different diseases, acted like a perfect charm. They occur, very frequently, mixed with local affections, requiring the corresponding mixture of remedies, either at their beginning or frequently in their course.

The use of Nitras sodæ occurs most in acute diseases, rarely in chronic diseases; yet this more frequently in children than in old folks, where I, however, have seen it act, strange enough, with unquestionable benefit, which Kessel also has witnessed; while the use of Ferrum and Cuprum occurs both in acute and chronic diseases.

While the "Regular" still is rolling the stone of Sisyphus, grasping, with a strange haste, after new remedies or antiseptics, staring after authorities or fashions, and groping in perfect darkness with his lancet, mercury or turpentine in the poor victim who has been trusted to his mercy, this systemic medication recognizes no other authority but the remedy, and gives a certain, safe and wonderful guide crowned with "*Tuto, cito et jucunde*."

Wood, in the "U. S. Dispensatory," mentions that Nitras sodæ has been found beneficial in dysentery, but adds, in a rather slurring way, that Rademacher also recommended it in a number of other diseases, which have nothing in common. The very same man is wondering who recommends mercury for meningitis, pneumonia, bilious fever and syphilis! What a contradiction!

By Rademacher's medication, I know when the alkaline treatment, or ferrum, or cimicifuga, will succeed in rheumatic fever, and, likewise, in all the general diseases.

The *dose* of Nitras sodæ: ʒss—ʒi per day; children, ʒi. In dysentery, smaller dose. Cuprum, as Tr. cupri. acet., ʒi, in aromatic solution of cinnamon-water, gtt. v; children, gtt. i per dose. Also, Cuprum, oxid. nigrum, in powder or pills.

Of Ferrum, I need not mention the dose.

[x.]

DISEASES OF THE SCALP.

BY I. J. M. GOSS, M. D., LL. D., MARIETTA, GA.

Continued from April No., p. 17.

ERYSIPELAS.

This is a dermatitis—an inflammation of the skin, and consists of a hyperæmic condition of the cutis, in which there is a profuse infiltration of serum within the cutis and subcutaneous areolar tissue, and in which there is a participation of the lymphatics in the inflammatory process. This condition may lead to gangrenous destruction of the skin, but it seldom ends in abscesses, but it may result in hemorrhage.

Symptoms.—The local lesion may be preceded by general malaise, chilliness and feverishness. Then the skin begins to feel hot and tense; swelling and redness now take place, together with tenderness. Generally the adjacent lymphatic glands swell, and become sore and painful. The inflamed portion assumes a red, smooth and shiny appearance; and is always darker on the scalp than any other parts, and the skin feels hard and firm. The inflammation gradually spreads, until it reaches all over the scalp, and sometimes creeps on down to the face, and even to the neck and shoulders. About the third day, the redness and swelling reach their height, and about this time the epidermis becomes raised and filled with a yellowish, limpid fluid, forming large blisters, which is called *erysipelas bullosum*; these blisters either dry up, or rupture and form a crust over the parts. During the acme of the disease, the patient has high fever, with evening aggravations; sleep is very restless and attended with frightful dreams; and some patients go into delirium. About the fourth day, in favorable cases, the redness and swelling begin to decline upon the parts first attacked, and finally the crusts dry off, and the epidermis peels off in large flakes; the disease lasting about eight days. But this is not universally the case, for sometimes the inflammation extends even to the membranes of the brain, causing an erysipelatous meningitis. In this stage, the redness either disappears from the skin, or changes to a purple hue; and the patient becomes unconscious, or even delirious;

and this form of the disease is very grave, and often terminates fatally. This disease may attack the body and limbs, but generally is confined to the scalp and face. It prevails frequently epidemically, and is sometimes very fatal in its results. It is often seen in hospitals, where it attacks amputated limbs and ulcers. There is a certain condition of the system that leads to this disease—a discratic tendency. When this predisposition exists, wounds, even very slight, may develop the disease. Such is the infectious tendency to it, in many cases, that even the bandages and other surgical appliances taken off patients readily reproduce the disease; it also seems to float in the air, and contaminates a whole hospital.

Phlegmonous Erysipelas.—This form is marked by a deeper redness, or a dusky redness, or, rather, a purple hue, which is scarcely, if at all, removed by pressure; the pain is burning and throbbing; the swelling is greater, and the surface is irregular; and there is deep-pitting upon pressure. In some cases, the swelling is so great, that the features are quite altered. Delirium often occurs in this form of the disease, independently of its attacking the membranes of the brain.

Causes.—Certain conditions of the atmosphere doubtlessly leads to the epidemic forms of this disease; and certain morbid states of the blood, lead to the sporadic cases that are occasionally developed. And I saw one case, where the disease was communicated from a child's head to the mother's arm, in carrying the child upon the arm. Hence, it is contagious as well as epidemic.

Treatment.—When the fever is high, and the pulse is full, strong and resisting, veratrum should be given; but if the pulse is quick, small, and easily compressed, aconite will be of essential service. And when the surface is smooth and shining, belladonna is indicated, and may be given in doses of from three to five drops about every four hours, alternated with the veratrum or aconite in moderate doses. If there are blisters, the vesicular form, then rhus tox. should be alternated with the veratrum or aconite; it may be given in two or three-drop doses every hour or two. If there is puffiness about the eyelids and face, and an itching and burning of the skin,

tincture of *apis mellifica*, in doses of five drops, should be given every hour, alternated with the muriated tincture of iron, in doses of fifteen drops. In the phlegmonous form, arsenic is one of our best remedies, given in drop doses of the tincture every hour or two, for a few hours, then every four hours, until this condition is corrected. If gangrene supervene, then arsenic is still indicated. If the skin is highly inflamed, I have found compresses of cotton or cloth, wet in a solution of sulphate of iron (say 13 to aqua pura, 1 pint) to give much relief. Or a solution of acid carbol. to milk (say 20 grains to 1 pint milk), applied as above, directed for the iron.

ECZEMA—CAPITIS—SCALED-HEAD—TETTER.

This disease is characterized by minute vesicles in great numbers, and frequently confluent. The vesicles are so closely aggregated, in some situations, as to give rise to one continuous vesicle of great breadth. Sometimes they dry and form thin scales, or they break and discharge a thin, milky fluid, which, by concreting, form crusts upon the surface. It may be either acute or chronic. It has been called *ekthema*, *porrigo*, *tinea*, and if chronic, it is called *psoriasis*. It differs from *impetigo* (which is pustular eczema), by the smallness of the vesicles or blisters, which contain a thin, limpid fluid, while the pustule of *impetigo* contains pus—that is, *impetigo* is a pyogenetic form of eczema. And the two forms of the disease may exist together upon the same head. The scabs or scales of eczema are much thinner, as they are formed from a thin, watery fluid; those of *impetigo* are tense and thick, and of a greenish-yellow color, or, rather brownish.

Treatment.—In the treatment, both local and constitutional remedies are required. I have found, in the early stage, *rhus tox.*, in doses of 1 to 5 drops every three hours, with carbolic acid, applied locally, to cure readily—say, carbolic acid, $\frac{1}{3}$, to lard, 13—apply twice a day, after washing with soap-suds. In the chronic form of eczema, I use the tincture of arsenic in doses of two or three drops three times a day, with the ointment of petroleum; and sometimes I alternate the arsenic with the tincture of *clematis*, in doses of five drops, three times

a day. If the eruption is dry, I use tincture of sulphur, in doses of five drops, three times a day. If these fail, which sometimes is the case, then I use viola-tricolor, in doses of five to six drops three times a day, alternated with tincture of juglandis cinera, in doses of ten to twenty drops. I have seen the disease cured by cold bath of the head, early in the morning, used for a long time. The sulphide of calcium—liver of sulphur—in small doses, is a valuable internal remedy, using one or two grains of the 1st dec. trituration three times a day. If the eruption is moist, staphisagria, alternated with thuya, in doses of two to five drops of each every three or four hours, will be found to be valuable. If the parts look very angry and excoriated, then mumiatic acid is a good remedy, given in doses of two to three drops in a wineglass of cold water. If there is an offensive smell about the disease, lycopodium dusted over the parts, and small doses taken internally, will do good service. Here, sulphite of soda is indicated.

TINEA FAVOSA—FAVUS—HONEY-COMB RINGWORM.

This is one of those diseases which results directly from a parasite. It appears as a small, yellow spot, the sheath of the hair being filled with the fungus growth; but it has no tendency to suppurate. It grows rapidly, and soon forms large, hard, dry crusts, emitting a mouse-like odor. It is very liable to be mistaken for impetigo, and may be known by its independent growth, instead of hardened pus, as in impetigo. It has no secretion, as in impetigo, but has the rounded form of honey-comb, and a broken or cracked-like surface. It is most usually found upon the scalp, but may be found upon the nape or other parts of the neck. This disease is produced by achorion *schaeleinii* and the *puccinia favi*. There are several varieties of ringworm—as tinea tonsurans, or tinea capitis; the common scurfy ringworm of the scalp, which affects children; which is also contagious. This form consists of circular patches, from half an inch to several inches in diameter, causing the hairs to look dry, withered, and as if nibbled off at the roots. This form is caused by the achorion lebertii, which look like powdered sulphur in chloroform; they are

visible in a high power of the microscope. Then we have *tinea decalvaus*—*alopecia*—*areata*, or *porrigo decalvaus*, which consists of smooth, circular patches of perfect baldness, quite pale, and of variable size, generally one or two inches in diameter. It mostly attacks young persons, but sometimes adults. The parasite producing this form, is the *microsporon audonini*. Then we have *tinea versicolor*, or *pityriasis versicolor*, or *chloasma*, which commences with small erythematous points, which itch, and they are slightly elevated, dry, rough patches of a fawn-color, somewhat scaly at the edge, from which bran-like scales are rubbed off; it occurs on the chest, abdomen and arms, as well as on the scalp. It is called, by the people, variegated dandruff or liver spots. It is produced by the *microsporon furfur*.

Treatment.—One of the first things is, to cleanse the parts well every day with carbolic soap, then apply sulphurous acid or carbolic acid, diluted, sufficiently, with a spray apparatus, three or four times a day. The internal administration of sulphur, alternated with sepia, will assist the cure. I use the tincture of sulphur, for I find that sulphur is not easily taken up by the absorbants in any other form. I use a saturated tincture, in five-drop doses, every four hours, continued for a long time.

[XI.]

A FEW WORDS ON VENTILATION.

BY DR. H. BRINKHAUS.

It would be useless to waste time and space in speaking of the necessity of pure air for our respiratory requirements, as every medical man is fully aware of it; but when we come to inquire how much ventilation is required for a medium-sized room and how this ventilation is to be effected, there exist only few exact data with which to answer, hence I will say a few words on the subject, giving the data which I owe to the celebrated Vienna hygienist, Prof. Novak.

A room of 40 cubic meters contains 40,000 liters* of air, and we call this a medium-sized room. The atmospheric air

* One liter is about equal to one quart.

when in good condition contains about 0.5 liters of carbonic dioxide (CO_2) to 1,000 liters of air, so that the whole amount of CO_2 in the above room is 20 liters. One adult produces upon an average 22.6 liters of CO_2 in one hour by the action of the lungs. When these 22.6 liters of CO_2 are added to the 20 liters CO_2 , which the above room normally contains, we shall have 42.6 liters of CO_2 in 40,000 liters of air, or in the proportion of 1.08 CO_2 : 1,000 liters of air, and such air is corrupted and utterly unfit for our respiratory needs, the limit of corruption of the air being 0.7 CO_2 : 1,000 air. It is understood that one person breathes in a medium-sized room of 40 cubic meters, which is *hermetically* closed, during one hour. Now the question is, how much ventilation must take place in order to prevent the room air from an overcharge of CO_2 . The outside air being mixed in the proportion of 0.5 CO_2 : 1,000 air, can only take 0.2 CO_2 : 1,000 in addition, if we suppose that it is not to exceed the limit of corruption, viz., 0.7 CO_2 : 1,000. Hence, in order to eliminate 22.6 liters CO_2 , which one man produced in one hour, we must for every 0.2 liters of CO_2 allow 1,000 liters air to enter the room; we must consequently effect a ventilation of 113,000 liters of air or the room air must be renewed completely in one hour about three times, and this renewal must of course be effected by a continual ventilation. Now there is a natural ventilation through the pores of dry walls of brick or limestone, which is calculated for a room of about 100 cubic meters to amount to 120,000 liters in one hour; this figure fluctuates according to the porosity of the wall and especially to the difference between the inner and outside temperatures. We readily calculate that this natural ventilation proves insufficient when only one inmate consumes the room air and that the air would soon be corrupted if the ventilation through the walls were not assisted by the slits of the windows and doors, by the opening of doors while going in and out, and *more especially* in the winter by the powerful ventilator which a stove or any room fire represents. This efficient ventilator is generally forgotten, and thus the heating of rooms by steam-pipes or by hot air is, in a negative way, an injury to our health on account of

the absence of a stove or any fire, the natural ventilation being ABSOLUTELY insufficient, and steam-heated localities are *very* pernicious, when otherwise not sufficient care is paid to ventilation. The carbonic dioxide, as such, is not a very venomous component of the air, for we find in beer-cellar and other similar localities great quantities of CO_2 mixed with the air, without noticing any dangerous effect resulting therefrom upon the persons who breathe this air. However with the CO_2 that organic beings expire it is different; though no particular chemical difference between the one and the other is claimed, it is a fact that the CO_2 which we exhale poisons the air; it must therefore contain some subtle poison, the nature of which, whether a gas or an organic microscopical being, has not yet been determined, but our best hygienists claim unanimously the existence of such a poison in the CO_2 of our breath. So it is best to judge of the state of air in rooms and localities where people live, by the proportion in which CO_2 is mixed with the air, and when we know what the natural ventilation depends on and form an idea of the size of the room and hold in view the number of inmates of the room and the production of CO_2 of each one, it is not difficult to judge whether a room is sufficiently ventilated or not. Having succeeded in supplying pure air to the organism, we have already effected the first vital indication for every patient without distinction, as the pure air is an undeniable necessity for the organism and more so for the sick organism, so that it may be able to display fully the *vis naturæ medicatrix*, and having also cared for a proper diet, our further special medication has every chance to fall upon good ground.

With regard to the natural ventilation, it is very important of what material the walls of a room are built; brick and limestone are about equally porous. Moisture upon the walls is the first proof of the want of porosity; the underground in very few cases accounts for this hygienic symptom. The natural ventilation is hindered by the moist material of the wall, and the moist wall is a cold wall; the exhalation of the inmates of the room is condensed on the walls, and that renders the same still less porous. Nothing has more influence

upon the moist condition of the walls than the water which was used for building the house. When the water contains nitrogenized substances, there is formed, by oxidation of the same, nitrate and subnitrate of lime and chloride of calcium, which possess the hygroscopic property to a high degree, attracting water with rapidity. A building whose walls are built with 200,000 bricks of 10 to each cubic meter contains 10 per cent equal to 100,000 to 200,000 liters of water, hence it appears a matter of great consequence that the quality of water used for building purposes be examined carefully, for walls built up with water that contains nitrogenized substances in excess will never be dry again. Stables, closets and waterplaces can never become dry dwelling places afterward, because the ammonia enters the walls and forms with the lime the aforesaid nitrate and subnitrate of lime.

[XII.]

DISEASES OF THE EYES.

BY I. J. M. GOSS, M. D., LL. D., MARIETTA, GA.

*Continued from April No., p. 17.***MARGO-ORBITALIS, BLEPHARITIS, INFLAMMATION OF THE LIDS.**

This form of inflammation commences on the edge of the eyelid, and gradually spreads over the whole lid to the margo-orbitalis, where it abruptly ceases. By this it is known from erysipelas, which is apt to spread further and further. In this form of inflammation, the lid is hard, swollen and red, and sometimes covered with small blisters. It may terminate in resolution, abscess, and, in some rare cases, in mortification.

TREATMENT.—If the lid be red, hard, swelled, and a discharge of mucus from the eyes and nose, aconite, in drop-doses, every hour will lessen the inflammation; and it may be alternated with a wash of sulphas zinci, 1 gr.; aluminis, 2 gr.; ex. belladonna, fl. 10 gtt.; aqua dist., i℥; drop a few drops into the eyes three times daily. If there is œdematous swelling of the lids, burning and stinging sensation, lids turned inside-out, or granulations on their edges, falling off the lashes, then tincture apis mel. in five-drop doses every two hours will relieve that condi-

tion. If there is great photophobia and lachrymation, and the lids inflamed inside, then five drops of belladonna should be given three times a day. The eyes should be protected from intense light by blue glasses.

DACRYO-CYSTITIS—INFLAMMATION OF THE TEAR-SAC.

This form of inflammation of the sac may be known by a swelling, which is easily pressed together, discharging a lachrymal fluid, or slime and tears. If suffered to run on without treatment, it will often result in fistula lachrymalis, by attacking the duct, causing it to close, and, by suppuration, forms an opening in the corner of the eye.

TREATMENT.—At the commencement, I have found small doses of pulsatilla very valuable. I usually give from three to five drops, three times a day.

If fistula lachrymalis has occurred, staphisagria, in five-drop doses, three times a day, alternated with pulsatilla in the same doses. And at the same time, a Bowman's silver probe, about No. 8, may be daily introduced for five or six weeks, to dilate the duct. The probe should remain ten minutes each time. Sometimes the canal so fills up that it has to be slit up into the lachrymal sac. If the inflammation causes entropion of the upper lids, then a small, elliptical piece of the skin should be cut out of the lid, and the edges brought together by silk sutures. This will cause the lids and lashes to turn outward in their natural position. This operation requires care and skill.

CONJUNCTIVITIS AND OPHTHALMIA CATARRHALIS.

These two forms of inflammation, in practice, need no discrimination. Conjunctivitis is spoken of in books as *idiopathic*, and ophthalmia as *specific* or *dyscratic inflammation*. But they are both inflammations of the conjunctiva, either of the palpebræ or bulbus, or of both together. It is readily known by the redness of the white of the eyes, the blood-vessels become dilated, run in parallel lines toward the cornea, and form in its margin a net-work of the capillary vessels. Very soon there takes place an exudation of lymph, which swells and distends the conjunctiva to a bladder, surrounding the cornea

like a wall, which is called *chemosis*. If the inflammation is suffered to proceed unchecked, the capillary vessels may burst, and the conjunctiva then becomes dark-red and solid, swelling to such a degree that it may protrude beyond the closed eyelids. There is a profuse discharge of purulent matter—a real ophthalmoblenorrhoea.

If the lids are suffered to adhere together, the matter collects behind them and runs, when the lids are opened, in a stream down the cheeks. This disease is frequently worse in the evening, especially the catarrhal form.

TREATMENT OF OPHTHALMIA.

If the inflammation run high, aconite, in small doses frequently repeated, will make an early impression upon the disease. At the same time, I would use sulphas zinci, 1 gr.; alumina, 2 grs.; tinct. belladonna, 10 gtt.; aqua rosa., 1 ℥; drop a few drops in the eye three or four times a day. If the light produces great pain, I usually give 5 gtt. of belladonna every four hours. If there is a purulent discharge, and a feeling of dryness of the eyes, euphorbium in one or two-drop doses every hour will do good service. If there is chemosis, with discharge of acrid tears, coryza with a burning in the eyes and nose, together with a pain in the frontal sinuses, then euphrasia should be given in doses of ten to fifteen drops every three hours. If there is excessive swelling of the lids, and but slight discharge, then rhus. tox. should be given in five-drop doses every four hours. In some severe cases, I have used a collyrium of nitrate of silver, one grain to the ounce of distilled water. If there still remains a profuse secretion of purulent matter, then a solution of four or five grains of nitrate of silver to the ounce should be brushed over the everted lids once a day.

OPHTHALMIA NEONATORUM.

This is conjunctivitis of new-born children. It is characterized by the same symptoms as ordinary conjunctivitis. If neglected, or improperly treated, it, by suppuration, often destroys the cornea, rendering the child blind. I have often witnessed this unfortunate result, both from neglect of parents

and from improper treatment by inexperienced practitioners and charlatans, or mountebanks.

TREATMENT.—Where there is redness of the eyes, with dryness at the beginning, restlessness, and dry, hot skin, aconite in small repeated doses, say, aconite 6 drops, to water 4 $\frac{3}{4}$; dose, one teaspoonful every hour. If the face is very red, showing determination to the head, gelsemium in doses of two or three drops every two hours will aid the aconite in relieving the inflammation. If there is, however, a copious discharge from the inflamed membranes, a collyrium of the nitrate of silver, 1 gr. to the 1 $\frac{3}{4}$ of distilled water, applied once or twice a day, will aid the other remedies. If it continues, and there is a hazy appearance of the eyes, then, instead of one grain to the ounce, there should be five, and applied until the discharge lessens and the haziness disappears. Then a lotion of alum, six grains to the ounce of water, should be used instead of the nitrate of silver. If the cornea ulcerates, arsenic is proper.

OPHTHALMIA SCROFULOSA.

In this form of conjunctivitis, there is a great dread of light; the patient will keep his eyes covered, and hence they feel better at night. They frequently press the eyes with their hands, as this gives them relief; this is pathognomonic of this form of conjunctivitis. There is generally an occasional flow of hot and acrid tears, corroding the face. The meibomian glands secrete more slime than in health, which sticks to the tarsal edges of the lids, forming hard, brownish crusts, under which the skin becomes irritated, and sometimes the eye-lashes grow in a wrong direction, or they fall out, causing the tarsal edges to become hardened, and full of little furuncles.

In this form of ophthalmia, the conjunctiva bulbi is first inflamed only in small patches, of a palish redness, the blood-vessels run in lines from the canthi toward the cornea, leaving white stripes of conjunctiva between them. And on the edge of the cornea they form a network, and some few of these enlarged capillary vessels extend over the cornea, where some small blisters may be seen forming, containing a purulent

fluid. The cornea becomes suffused, grayish, opaque, and sometimes the inflammation extends to the iris.

TREATMENT OF SCROFULOUS OPHTHALMIA.

If there is chemosis, the cornea grayish, smoky, opaque, burning, stinging pain in the eyes, if the lids are turned inside out, granulated, eyelashes fallen out, the lids swollen and highly inflamed, then *apis mel.* in tincture, five drops every hour or two, will aid the removal of this condition. If the lids are spasmodically closed, highly inflamed, looking like a piece of raw beef, cornea degenerated, the pain burning, the discharge excoriating to the parts, then small doses of the iodide of arsenicum will prove to be the most positive remedy. It may be given in doses of the 1-20th of a grain; to children, the 1-40th of a grain every three or four hours. I usually use the 1st dec. trituration, in doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain, three times daily. At the same time, one grain of *sulphas zinci* should be dissolved in one ounce of water, and a few drops dropped into each eye three or four times a day, and if the discharge is thin, two grains of alum may be added, or a lotion of the alum used separately. In the chronic form, I have found the chloride of gold, in small doses, to do much good; I usually give about the 1-20th or 1-30th of a grain three times a day. If the lids are hard, and there is a dry, brany eruption of the face, sulphur, in doses of five drops, is a good remedy. I give the saturated tincture always.

[XIII.]

ACUTE RHEUMATISM.

This very severe, common and painful disease arises from some abnormal condition of the blood, the pathology of which is not fully understood, or is in dispute.

The action of this blood poison is not confined to any particular texture or organ, although it more often affects the white fibrous tissue of the aponeurotic sheaths and fascia, ligaments, tendons and serous membranes surrounding the joints.

There are two very distinct varieties of rheumatism, viz., acute and chronic.

Acute Rheumatism, or rheumatic fever, is characterized by intense fever, profuse sweats of an acid character, and inflammation of the fibrous tissues surrounding one or more of the joints, hence the term "inflammatory rheumatism."

This variety of the disease causes the most intense suffering, and is especially dangerous from its tendency to affect the heart. When the febrile symptoms are slight and the inflammation of a mild character, the disease is termed subacute rheumatism. A remarkable and characteristic feature of the disease is the great tendency of the inflammation to shift about from one joint to another, then to a third place, and then, perhaps, jumping back to its original seat. The most serious change—a change to be dreaded and avoided in all cases—is when the inflammation extends to the heart. The average duration of an attack of uncomplicated acute rheumatism, under the best Old School treatment, is from twelve to thirty days. In fatal cases, death is almost invariably caused by cardiac inflammation. The greatest number of cases occur in persons between fifteen and fifty years of age.

Treatment.—First give a saline cathartic, sulphate of magnesia being as good as any; as soon as it has operated, commence with the following:

Ext. Xanthoxyli bac fl.

Ext. Cimicifugæ rac. fl. āā ʒijj

Spts. Juniperi ʒix

M. Sig. Dose, one dessert-spoonful three times a day.

In connection with this internal remedy use the following Liniment:

R. Tr. Arnicæ.

Tr. Valerianæ.

Ol. Lavendulæ āā ʒi

Artheris Sulph ʒij

M. Sig. Apply frequently with the hand, *always* rubbing downward toward the fingers and toes.

The prompt and faithful use of this treatment will quickly relieve and permanently cure almost every case of acute inflammatory or other variety of rheumatism. In many cases it acts as if by magic, giving the patient relief from his agonizing

pains in a few hours, and rarely will any cardiac complications ensue when this treatment is promptly applied.

ED. F. RUSH, M. D.

SELECTED.

Small Doses of Medicine.

The March number of the New York *Medical Journal* contains a very interesting paper by Thomas J. Mays, M. D., "On the Elective Action and Small Doses of Medicines, with Illustrative Cases." He believes that our therapeutic agents are the embodiment of forces; that when viewed from the standpoint of life they naturally divide into two great classes, viz., those which move in harmony, and those which move in discord with the vital forces; that those which move in such harmony tend to enhance the bodily forces, and that those which move in discord can be so regulated as either to promote or depress bodily activity. Upon this latter cause he bases his theory of small doses and seeks to administer medicine so as to secure the greatest possible amount of stimulation without engendering any of their toxic qualities. To this end, he gives small and oft-repeated doses until the full stimulant effects are secured, and then withdraws the remedy or gives it at longer intervals.

The following cases are herewith presented in order to illustrate the foregoing principles of therapeutic action in a practical light. They have all been selected from regions of the body where the nature of the disease could not be mistaken, and where the result of treatment was readily perceived. They will be related in as condensed a form as is consistent with their intelligible comprehension, and comments will be made wherever necessary.

CASE I. *Tincture of Aloes in Prolapsus Ani.*—Saw J. G., aged two years and five months, first on August 5, 1878. She was then suffering from prolapsus ani and diarrhœa. The diarrhœa yielded readily to ordinary remedies, but the bowel protruded as before. I ordered the mother to wash the pro-

lapsed rectum with a decoction of tannic acid, which she faithfully carried out until August 19, when I saw the child again. There was no improvement. I now gave her drop-doses of tincture of *nux vomica* every three hours, which was continued for more than a week without any perceptible alteration. On September 2, I began to treat her with drop-doses of tincture of aloes every two hours, with marked benefit in the course of two days. She continued to improve under the medicine, the bowel returned to its normal condition, and remained so.

Remarks.—It is hardly incumbent on me to say anything concerning the therapeutic action of aloes, for it is well known to have a special affinity for the lower portion of the alimentary tract. Wedekind and Phillips hold the opinion, which was confirmed by the researches of Rutherford and Vignal, that it also possesses a cholagogue action. In the above case, however, it was not employed with a view of obtaining its hepatic action, but principally for its influence on the lower bowel, and I think that it has, in the manner above indicated, conferred a healthy tone on the relaxed muscular coat of the rectum. Not every case of *prolapsus ani*, however, can be intrusted to the curative action of aloes, but I think its failure can be accounted for from the fact that the relaxation of the bowel extends further up than its own influence, and such cases often yield to its combination with *nux vomica*, or to the latter alone, whose sphere of decided action at least reaches above that of aloes. I think the reason for the shortcoming of *nux vomica* in this case was due to the fact that the lesion was principally confined to the extremity of the bowel. That *nux vomica* will not fail when the proper conditions are present is evident from the following case :

CASE II. *Tincture of Nux Vomica in Prolapsus Ani.*—D. S., aged two years and four months, became subject to diarrhoea in the early part of the present summer, and I was summoned to see her August 20, 1878. The number of stools amounted to as many as five and six during the day, and also became somewhat bloody. I treated her with opium, *ipecacuanha*, *magnesia* and tannin, without much decided benefit to the diar-

to complicate matters, the bowel began to

protrude. On September 1, I began to treat her with half-drop doses of tincture of *nux vomica* every half-hour, and in a few days both the diarrhoea and the prolapsus improved. In a few days after, the bowel was well, and the diarrhoea had ceased, the medicine was neglected, and the mother fed the child with some apples, which brought on both disorders again. Ordered the medicine to be renewed, and with the same beneficial result as before.

October 7.—Continues well.

Remarks.—In *nux vomica* we find an agent which has an undoubted action on the nerves of the intestinal canal, and in this manner influences its muscular coat, and we have reason for believing, from the persistent irritation and diarrhoea, that that part of the alimentary canal which is comprised by the large bowel was involved in this case. Aloes would certainly have had a beneficial action on the rectum, but it is exceedingly improbable that it would have relieved the whole trouble.

CASE III. *Tincture of Cantharides in Irritable Bladder.*—Mrs. P., aged about twenty-seven, primipara, pregnant about four months and a half, consulted me September 15, 1878, on account of an incessant pain in the region of the bladder, accompanied by a continuous desire to pass water. She says that she is compelled to get up as often as a dozen times during one night to urinate, and that she is in misery both day and night. She refers her pain directly to the neck of the bladder. I gave her morphia, bicarbonate of soda, etc., and applied hot flaxseed poultices to the seat of pain, without any decided relief. On the morning of September 27, I began to give her drop-doses of tincture of cantharides, in a teaspoonful of water, every hour and a half. She soon began to improve, and the following night she only passed water twice. Last night (September 28), she only urinated once. The pain and irritability subsided altogether under the influence of the medicine.

CASE IV. *Tincture of Cantharides in Incontinence of Urine.*—W. R. (October 11, 1878), aged four years, has been troubled with incontinence of urine for the last two or three

months, his water escaping almost every night. Gave him one drop of tincture of cantharides, morning and evening, with great relief.

Remarks.—Among the specific effects of cantharides is its action on the mucous membrane of the urinary passages, especially on the bladder and its neck—causing violent tenesmus and strangury in that organ in large doses. In Case III, it undoubtedly removed the existing irritability in the bladder by the method which we saw such agents possess in relieving inflammation (for irritability is but removed a step from inflammation) by well-regulated stimulation. In Case IV, this agent, by its stimulant action, infused a more healthy tone into the contractile structure of the neck of the bladder, and thus enabled it to prevent any further involuntary escape of the urine.

CASE V. *Fluid Extract of Bryonia in Subacute Pleurisy.*—On September 2, 1878, I was called to see T. D., aged fifty-five, who suffered with a severe and sharp lancinating pain in both sides of the chest. He is unable to take a long breath, on account of the intense pain which is occasioned by such an act. Pulse, 110. Skin hot and dry. I learn that, some years ago, he was subject to what he calls pleurisy, and, on examination, I find pleural friction in both mammary regions of the chest. I applied a tight bandage around his chest, and gave him one drop of fluid extract of bryonia every half-hour, in half a teaspoonful of water.

September 3.—Saw the patient again this morning, and found his condition very much improved. He is now able to sit up in bed, and can take a long breath without much inconvenience. Continued same treatment.

4th.—Discharged him. I also ordered him to take plenty of milk and other nourishing fluid food.

Remarks.—It is well attested by all those who have made physiological experiments, or who have used it therapeutically, that bryonia has a marked specific action on the serous membranes of the body, notably so on the pleural surfaces. Phillips says that it will cause “fatal pleurisy with fibrinous effusion;” and of its therapeutic value he says that, in peri-

carditis and pleurisy, "it fully equals any remedy that exists." Hughes says that "no poison affects the serous membranes so certainly and powerfully as bryonia." I have seen similar excellent results in other cases of pleurisy, as well as in peritonitis, although my observation leads me to think that it is perhaps more efficacious in the former than in the latter disease.

CASE VI. *Fluid Extract of Podophyllin in Clayey Stools of Infantile Diarrhœa.*—To-day (September 1, 1878), I saw T. D., aged fifteen months, a convalescent from a severe attack of cholera infantum, who is still subject to diarrhœa. His evacuations number about five or six during the twenty-four hours, and are of a grayish-white color, resembling light clay. His diet consists of milk, barley-water, beef-tea, and cod-liver oil emulsion. He is very much emaciated. I gave him half-drop doses of fluid extract of podophyllin every two hours, in half a teaspoonful of water. Saw him again on September 3, and the mother reports that his stools are changed to a more healthy color and consistency, and that he has only had three stools within the last forty hours.

September 6.—Still improving.

12th.—Discharged well.

Remarks.—I think there can be no doubt that the clayey stools of this patient were the result of an inactive liver, and that as soon as the podophyllin, which is now well known to be a powerful cholagogue, stimulated this organ to its wonted activity, the stools assumed their healthy color and consistency.

CASE VII. *Fluid Extract of Hamamelis in Internal Hæmorrhoids.*—E. W., miner, aged —, came to me on the morning of October 16, 1878, and consulted me concerning bleeding piles, which have troubled him off and on for seven years. He had been under my care before for the same disease. He says he is in great pain, which extends from the anus up on the left side of the spine as far as the top of the pelvis, and that he loses as much as half a teacupful of blood at each evacuation of the bowel. He looks haggard, and walks in a stooped position, saying that he cannot stand erect

on account of the pain in his back. Gave him one drop of fluid extract of hamamelis every hour, in half a teaspoonful of water.

October 17.—Saw him again, and he reports that he is somewhat better; the pain in the back is relieved very much, but he still loses some blood at stool. The hemorrhage is not so profuse, however, as it was before he took the medicine. Continued same treatment.

18th.—He now reports himself improved in every way; less blood in stools, and no pain at all in the back.

19th.—He is well, and says that he never got over any attack so quick as he did at this time.

Remarks.—This American remedy controls the vascular mechanism in a manner similar to digitalis, its action, however, being confined more exclusively to the venous circulation. Dr. Ringer says: "It is very highly recommended in piles, both to check bleeding and to cure the diseased veins; and I have found it singularly successful and prompt in arresting this form of bleeding, even when amounting to half a pint a day, repeated almost daily for months or years. It should be employed either as a lotion, injection or cerate in piles, as well as by the mouth. It has been recommended in varicocele; and one case I have seen in which, during the employment of this drug, the varicosities entirely and apparently permanently disappeared." My excellent friend Dr. E. R. Mayer, in his essay on "Specific Medication," says that "Hamamelis Virginica certainly has a specific action upon the venous system, and is, independently of its content of tannic acid, an astringent and tonic to weakened, engorged and dilated veins, to venous sinuses or capillaries, and a rarely-failing remedy for all the passive hemorrhages. * * In bleeding piles, its good effects are most marked. Its continued use in small doses will also frequently cause the largest hemorrhoids to contract and to disappear, if great infiltration and thickening of the cellular tissue have not occurred. In these cases, the local use of the decoction, or of an ointment or poultice of the medicine, adds much to the success of the treatment."

CASE VIII. *Sulphate of Atropia in Hydrosis.*—July 31, 1877.—G. L., aged nine months, has been troubled with profuse perspiration about the head, neck and shoulders for the last two months. The sweat is cold and appears in large drops, and mostly occurs during sleep or upon the slightest exertion, as crying, for instance. The sweating is so excessive that she literally saturates everything under her head, and the nurse informs me that it is necessary to change the pillow three and four times during one night, in order to keep her dry. She is pale and emaciated. I prescribed for her 1.300 of a grain of sulphate of atropia once a day, or every other day, as the case demanded, and the sweating ceased forthwith.

Remarks.—I think it is now definitely settled that atropia, in small doses, has the power of reducing the caliber of the capillary blood-vessels; and, by thus diminishing the circulation of the skin, it promotes a more active blood-flow through this organ, and restrains the loss of the watery constituents of the blood. Many other similar cases of special therapeutic action in diseases of other structures of the body could be given, but I think these will suffice to illustrate the object of my paper.

Electro-Therapeutics.

BY JOHN W. LANGLEY, M. D., S. B.

Fifteen or twenty years ago, it was the fashion to consider those persons who professedly made use of electricity as a curative agent as being either quacks outright or at least as strongly tinctured with a bias toward irregular systems of practice. The high hopes which were excited when this mysterious force was first employed therapeutically, founded on the fact that, as galvanism could cause muscular contractions in a dead person, and so simulate the action of vital manifestations, it was therefore probable that its control over morbid processes would be equally potent, were speedily followed by disappointment, and, by a natural re-action, the great body of conservative physicians passed to the opposite extreme, and came to regard electricity as being of very little practical

service, and as, at the best, a very uncertain remedy, more likely in any given case to fail than to succeed.

At the present time, this agent has taken its place among the legitimate means at the disposal of the practitioner in conducting his warfare with disease; but, owing to the fact that it is not a *substance*, and is therefore incapable of being weighed like an ordinary drug, and also owing to its capability of being used through a wide range of intensities and quantities, the effects to be expected from any given application of it are, as a rule, much less certain than when a drug is depended upon; hence, the average physician uses his battery with distrust, with an uneasy feeling that perhaps it will do good, and in any case will not do harm, and with the latent consciousness within himself that he does not clearly know what pathological or physiological changes he wishes the current to produce.

Now, if a physician has a general faith in the virtues of electricity and is desirous to use it, but is, at the same time, not especially informed on this branch of the *materia medica*, he would naturally have recourse to various treatises for his guidance. After he has read two or three books, he will probably give up the subject in despair, for he will encounter such a confusion of terms, such a multiplicity of directions and often so many contradictory statements, so many special forms of batteries, induction-coils and electrodes will be forced upon his notice, that he will be inclined to think it easier to discover truth at the bottom of a well than to winnow out from all this heterogeneous material a few simple rules which will guide him in his practice.

But if we will consent to regard electricity in its various forms, not as a bundle of specifics for special diseases, to be applied blindly, according to minute directions, but rather as a great curative agent, comparable to opium in the scope and power of its applications, and, like opium, to be given with a clear understanding of its dose, its method of exhibition and its general remedial function, then there are a few broad directions which will enable us to use our batteries frequently, scientifically and with good effect.

As an example of the confusion and multiplicity of terms we have: Frictional, Galvanic and Faradic electricities, contact electricity, magnetic electricity, static and dynamic electricity; then, too, we have many names for currents, as primary, secondary, inducing, induced, extra and extra-induced, etc.; and finally, as to batteries, their name is legion. The writer of this paper not aiming to give an account of the special applications of electricity, or even of the literature of the subject, but only to furnish a concise statement of general rules, together with the description of the simplest apparatus which will meet the wants of the general practitioner. With this understanding, then, he proposes to pick out from the above list those terms only which have gained general acceptance, and have sharply-defined meanings; they are the following:

- Battery.
- Galvanic electricity.
- Induction-coil.
- Primary current.
- Secondary or induced current.
- Positive and negative poles.
- Electrodes.

Of the many forms of batteries, only a few are made which are portable, and of these, two are simpler and more powerful than the rest. They are the *Grenet* and the *Frommhold*. The first consists of one zinc plate and two carbon plates, suspended from a frame and hanging parallel to each other, at a distance of about a half-inch; the binding-post, connected with the carbon plates, is the positive pole, and the zinc post is the negative pole. The plates, when in use, are immersed for about two-thirds their length in a solution of bichromate of potassium and water, with sulphuric acid added. A convenient strength for the fluid is given by dissolving the bichromate in water to saturation, and then adding from one-tenth to one-fifth, by measure, of strong sulphuric acid; when used in the battery, this must be diluted with one or two volumes of water.

The *Frommhold* battery is formed of two zinc plates and one platinized lead plate, suspended as in the *Grenet*, the same fluid being used. The lead binding-post is positive, and

the zinc negative. The disadvantages of the Grenet battery are, that, owing to the porosity of the carbon plates, the fluid rises in them by capillary action, and, after awhile, so corrodes the metallic junction at the top that the current is prevented from passing.

The Frommhold battery is not quite so powerful as the Grenet, but, being wholly of metal, this corrosion of the junctions is not possible, except from splashing; care must, however, be taken not to touch the lead plate, as the platinum-black on its surface is very easily removed. With a little care, the Frommhold is a durable and satisfactory instrument. Two cells of either of these forms will give sufficient current to drive any medical induction-coil, and, indeed, they are ample for the purposes of the general practitioner who must use a portable instrument or none.—*The Physician and Surgeon.*

(To be continued.)

Clinical Records from Private and Hospital Practice.

I.—*Case of Extra-uterine Pregnancy.* By N. Chapman, M. D., Glymont, Md.

The interest of the following case is comprised in the anomalous position of the foetus, and the illustration it afford, of the capacity of nature to overcome seeming impossibilities.

Mrs. B., married, aged about forty, mother of four children, the last child born October 26, 1874.

Menses established in due time; had her last menopause about the 15th of May, 1876, followed by the usual signs of pregnancy.

I was called to see her November 27, 1876, for some trouble not connected with her pregnancy. While with her, she requested me to examine her abdomen, saying that it did not look as it did in previous pregnancies. I did so by palpation alone (for reasons hereafter to be mentioned), and found an oblong tumor lying in the left lateral half of the abdominal cavity, between the umbilicus and left lumbar region, arising out of the pelvic cavity, toward the left inguinal region, reach-

ing nearly up to, but not under, the lower border of the ribs on the left side. The apex of the tumor extended into the pelvic cavity.

By careful palpation, I was satisfied, as far as one is justified in forming a conclusion from such an examination, that it was a case of abdominal pregnancy. While manipulating the tumor, I felt the movements of the foetus, though the patient said she had not felt them. Concealing my apprehensions, I informed her that I would examine her condition more thoroughly at some future time, and left her.

On the night of the 28th of November, 1876, I was called to her in great haste, and upon arrival was informed that while sitting quietly in a chair she experienced a sudden gush of blood from the vagina, and had been bleeding profusely since. Upon examining the bed and person of the patient, I found the statement had not been exaggerated. I immediately made a digital examination, found the os patulous, and dilated about an inch and a half. Upon passing my finger into the womb, it came in contact with a body soft and rugated to the touch, the characteristic sensations produced by contact with a retained placenta. I concluded there were two and a half inches of detached surface exposed. I found, by sweeping my fingers around the edges, that it was firmly adherent.

It immediately struck me that it was a case of abdominal pregnancy (with the placenta implanted over the os), similar to the case of Helen Zopp, recorded on page 239, "Cazeaux's Obstetrics," third American edition.

While making the examination, in order to form an adequate conception of the amount of hemorrhage, I placed my conjoined fingers under the posterior lip of the os, and could feel a stream of blood which seemed as large as a goose quill trickling through my fingers. The undetached position of the placenta over the os being the proper condition for the use of the tampon, I immediately gave a large dose of tincture of opium, in order to gain time for reflection and to obtain professional assistance.

Watching the effect of the tampon, I was gratified to find the external hemorrhage was controlled, and as long as the

placenta remained *in situ* I had no fears of internal hemorrhage, though the womb was carefully watched. Dr. J. W. Thomas came to my assistance about 10 A. M. the next day. After informing him in the anteroom of the circumstances of the case, he suggested that probably upon examination I would not find the state of the womb (*i. e.*, dilatation and hemorrhage) which had existed when I used the tampon.

At my request, he removed the tampon, and reported the os entirely closed and comparatively no hemorrhage. Upon examination, I was agreeably gratified to find the statement correct. Enjoining quiet and strict observance of the recumbent position, with an occasional dose of deod. tinct. opii and tinct. ferri, I took my leave. The hemorrhage ceased altogether in about a week. I then permitted her to get up and move about her room, avoiding all exciting and disturbing influences.

Here I deem it best to say what I have deferred in regard to the peculiar temperament of my patient, which influenced my actions when I first observed her condition, and my subsequent management of the case.

By nature morbidly apprehensive, her mother having died in childbirth, her previous pregnancies had been periods of the utmost despondency, and she was disposed to imagine the most unreasonable and improbable evils for herself and children. I therefore did not make a vaginal examination when first consulted by her, my first duty being to allay her anxiety. At the same time, I thought I would have ample opportunity to critically examine her case, and I had to refrain from further examination until toward the close of the eighth month of her pregnancy. In the mean time, I placed her upon an active tonic treatment, with nourishing and easily-digested diet. I waited until the 20th of January, 1877, before examining again. Having then passed the finger to the os, I was surprised to find that it was cartilaginous to the touch, with all the characteristics of the non-gravid uterus, being only a little larger than normal.

Proceeding then to examine the abdomen, I found the tumor much smaller, and that it had risen out of the pelvic cavity,

was disk-shaped, about five by six inches broad, to a considerable extent movable, but with attachments on a level with the umbilicus. I asked the patient if she had observed that her abdomen was smaller than it was at the time of her hemorrhage. She then for the first time informed me that it was her custom in all her previous pregnancies to make an abdominal measurement monthly, and that she had discovered since the 23d of December previous that her abdomen was gradually lessening in size. I then for the first time learned that the foetus was dead and had become encysted, a fact which I should have anticipated from the amount of hemorrhage, and have inferred from the evident septic poison under which her system was laboring, manifested by the dirty greenish hue of her complexion since the hemorrhage. At no time after the cessation of hemorrhage was there any vaginal discharge. The placenta was removed by absorption.

On April 4, 1878, I was again called to this patient, and informed that she was pregnant, and was in her third month.

I found by examination that the womb in its size corresponded to her statement as to the stage of her pregnancy. There being considerable uterine hemorrhage, I prescribed the usual remedies, and informed her that I thought it more than probable she would have an abortion, which she had on the following day, the foetus being sufficiently developed to distinguish its sex. I availed myself of the opportunity to examine the condition of the tumor, and found it was somewhat smaller, apparently about four by four and a half inches in width. It still preserved its disk shape and umbilical attachments.

She informs me by letter of this date (January 31, 1879) that it is about the size of an infant's head; how old an infant, she does not say.

The hypercritical may insist that my original diagnosis was not sufficiently established—that I did not use all means to eliminate error, such as vaginal examination, passing the uterine sound, etc.

I confess that it was my intention to do so had there been another opportunity, not to remove any doubt, but to confirm my opinion; but not having done so did not cause me to

question the accuracy of my diagnosis when I discovered the presence of the placenta in the womb.

In dismissing the subject, I will quote from Prof. T. Gail-
lard Thomas's article upon abdominal pregnancy in the Janu-
ary number of the *American Journal of Medical Sciences*, in
reply to similar caviling :

"There may be those who will say that these evidences were
too meager for diagnosis. All I have to say in reply is, that
I thought otherwise, and had confidence in my belief."—*New
York Medical Journal*.

Apomorphia in Cynanche.

At an early hour on the morning of February 17, 1877, I
was called in great urgency to see the infant son of Mr. B. F.
J——, one of my clientele. The father, who had come for
me in person, to insure my immediate attendance, while I was
dressing gave me the following condensed history of the case :
The child, which was about two years old, had complained
slightly the day before, and even the night previous to that ;
but the parents, being young and inexperienced, "thought it
was nothing but a cold," and paid no attention to a series of
symptoms (as detailed by the father) that would have excited
the fears of older and more experienced persons. "Last
night," added the father, "the little fellow did not seem so
lively as usual and was a little fretful ; but, beyond a *mewing*
sort of a cough, we never noticed anything wrong with him.
He slept with his nurse, in the next room to his mother and
myself, but, though the door was open between us, neither of
us knew that there was anything serious the matter until I
went into the room, a few minutes ago, and found him in
spasms and choking to death."

On arriving at the house, which was distant but a half-
block from my office, I found my little patient in a truly
alarming and pitiable plight. He was lying on the bed, the
head and trunk drawn far backward, with marked opisthotonos.
The face was cyanosed and livid, the hands clenched, and from
between the firmly-set teeth slowly exuded a frothy mucus.

The struggle for breath, the gasping, whistling effort to inhale the air, was simply horrible, and it was plain that unless relief was very prompt, the combat could not be maintained much longer. Death was near at hand. I had in my hypodermic case a solution of hydrochlorate of apomorphia, containing 1 per cent of the salt, and without hesitation I injected five (5) minims of it under the skin of the arm. I then directed the father to take the child in his arms and hold him face downward, and, with my watch in hand, I awaited results. In two minutes and fifty seconds, almost without an effort, copious vomiting came on and a membraneous cast of the larynx and trachea was expelled. Per saltum, as if by magic, the terrifying and urgent symptoms disappeared, and a new lease of life was taken by my little patient. The subsequent treatment of the case I need not detail here, the patient making a quick recovery.

My object in transcribing the above is to emphasize the statement made by Ellis ("Diseases of Children," Wood's Library Edition, pp. 104-5), that "apomorphia is an excellent emetic in croup, in doses of one-fortieth of a grain"—though the dose used by me was double this amount.—*Frank L. James, Ph. D., M. D., in the Medical Record.*

Elastic Adhesive Plaster.

For some time, I have been trying to find an elastic covering that, being attached to the skin, would move to the movements of that membrane and the parts beneath it without causing an unbearable sensation of stiffness or an uncomfortable wrinkling. As there was nothing in our market to suit me, I procured some India rubber, and giving it a coat of plaster, such as is recommended in Griffith's Formulary under the name of Boynton's Adhesive Plaster (lead plaster one pound, rosin six drachms), I found the material I wished. After using it as a simple covering for cases of psoriasis, intertrigo, etc., I extended its use to incised wounds, abscesses, etc., and found it invaluable. Placing one end of a strip of the plaster

upon one lip of the wound, and then, stretching the rubber and fastening the other to the opposite lip of the wound, I had perfect apposition of the severed parts, the elastic rubber acting continually to draw and keep the parts together. When I have been unable to get the sheet of rubber I have used the broad letter-bands (sold by all stationers) by giving them a coat of the plaster. I do not know if this kind of a plaster has ever been placed before the profession. If it has, I can do no harm in again calling the attention of surgeons to it. If it has not, I feel assured that any one who uses it once will never again be without it, as it is cleanly, certain and satisfactory in its action and fulfills indications that no other plaster does or can.—*Dr. Wilbur P. Morgan in Boston Medical and Surgical Journal.*

Treatment of Asthma.

℞ Lobeliæ fol. pulv.....	3 ij
Stramonii fol. pulv.....	3 ij
Belladonnæ fol. pulv.....	3 ij
Pot. nitrat. pulv.....	3 iij

Mix and keep tightly corked.

Order the patient to shut himself in a small, warm, close room, and sprinkle the medicine upon live coals, or smoke it in a fresh clay pipe, till relief is obtained, which is usually within ten or fifteen minutes.—*American Practitioner.*

Enema of Chloral in Sick Headache.

A French authority recommends this treatment very highly. He prefers milk or an emulsion of white of eggs as a vehicle. He says that a patient of his, a lady who is subject to severe attacks of migraine after shopping, etc., is accustomed, on her return home, to take an enema consisting of a glass of warm water with a tablespoonful of the following mixture: Chloral grs. xiv, aq. dest. fl. 3x. She then reclines upon a sofa, with closed eyes. Within a few seconds she begins to taste the

chloral in her mouth, and at the same time she experiences a sensation of numbness. Little by little the headache disappears, nausea is allayed, and a half-hour later nothing remains but a slight discomfort in the head, with a little torpor. Within an hour this lady finds herself able to sit down to dinner, and, by the time the meal is over, she has forgotten all about her headache, and is able to entertain visitors during the evening. In this case twenty grains of chloral are enough, but in the case of men thirty or forty grains are required. He regards this treatment as almost infallible for the arrest of sick headache, and as decidedly preferable to the administration of remedies by the mouth. It has the advantage of not disturbing the stomach. Chloral acts also very promptly, its absorption by the rectum being almost instantaneous, as is proved by the effects on the general system, and also by the exhalation of chloroform by the lungs within a few seconds after the enema has been taken.—*The Cincinnati Lancet and Clinic*.

Introduction of Medicines by Inunction.

Is the antiperiodic treatment of intermittent fever the correct one? I, for one, question it.

Prof. J. H. Salisbury's theory that intermittent fever is caused by the introduction into the system of cells or spores emanating from certain species of algoid plants called pallmel-læ may not be the correct one, but even the able attempted refutation of Prof. H. C. Wood, Jr., does not convince me that it is not. Acting upon this theory, my treatment of intermittent fever the last ten years has been exclusively with the sulphites. The sulphites are not only certain prophylactics, but they have proven in my hand altogether the most certain and effectual cure yet discovered. Again and again, I have prescribed them to patients laboring under the disease, and allowed them to go right on with their work in the midst of the cause of their malady, and with rapid restoration to health, as the result without an exception. It is simply a matter of time for the etiology of all zymotic diseases to be recognized as crypto-

gamic. Since I have treated diseases on that theory, my prescriptions have been of comparatively small profit to the druggist. Notably has this been the case in the treatment of diphtheria. Seldom does the cure of a case of diphtheria require more than the following, to wit :

R. Acid sulphurous.....5 drachms.

Sol. pot. chlor. sat. ad8 ounces.

M. Sig. Dessert-spoonful every hour or two.

I mean ac. sulphurosii, not sulphuric, as the types made me say in my article on cholera. In my experience, there seldom exists ulceration in the more malignant cases of diphtheria ; nothing but the thick yellow, or black exudative membrane.

When ulceration exists under the membrane, I add to the above prescription iron and glycerine, as follows :

B. Ac. sulphurosii4 drachms.

Tinct. ferri mur.....3 drachms.

Glycerine.....1 ounce.

Sol. pot. chlor. sat4 ounces.

M. Sig. Dessert-spoonful every hour or two.

— *W. W. Carpenter, M. D., Medical Brief.*

Baptisia Tinctoria in Typhoid Fever.

A paper read by Dr. Laurence Johnson, of New York, at the recent meeting of the Medical Society of the State of New York, on the "Action of Baptisia Tinctoria in Typhoid Fever," is summed up as follows by the reporter for the *Boston Medical and Surgical Journal*: Baptisia tinctoria, although formerly believed to possess antiseptic powers rendering it useful in diseases having a tendency to putrescence, has of late fallen into utter neglect with the regular profession. It is, however, extensively employed by the Eclectics and Homœopaths, the latter especially considering it very valuable in typhoid fever. It was to test its value in this disease that the experiments recorded were made. The preparation used was a tincture of the root, and it was administered in small doses (from

one to five drops) at intervals of from one to three hours. The ordinary general measure of treatment, such as cool sponging, milk diet and stimulants, when required, were not neglected, and any casual indications were promptly met and appropriately treated. Careful records of pulse and temperature were kept and were shown in tables accompanying the paper.

Of the seven cases whose histories were detailed, three at least had, at the beginning, symptoms betokening attacks of severity. The pulse, temperature and general condition of these patients left no room for doubt upon the point, yet the improvement under treatment was remarkable. In general, it may be stated that the cases, when treatment was well under way, were characterized by lack of symptoms sufficiently grave to occasion anxiety. There was a marked absence of delirium and comparatively little diarrhoea, though at the beginning, in two or three cases, these were very troublesome features. The temperature seemed to be reduced by the drug, and in one case, where the morning temperature was as high as 106° F., when Baptisia was employed for the first time, it never reached that point again, while the patient was fully convalescent in ten days. All the patients made good and comparatively quick recoveries.

Taken altogether, although the results obtained in such a small number of cases could not, of course, be considered conclusive, they appeared to establish a certain relation of cause and effect between the drug and the favorable course of the disease. The evidence on this point Dr. Johnson regarded as sufficient at least to encourage further trials, which he hoped no mere theoretical considerations would be allowed to prevent.—*New Remedies.*

Pictures from the Parisian Hospital.

Professor (who has his class in the wards) to patient, "What is your occupation?" Patient (who has pulmonary disease), "Musician, sir." Professor, to class: "There, gentlemen, at last I have the opportunity of demonstrating what I have often

told you in the lecture-room, that the wear and tear on the respiratory tract caused by the blowing of musical instruments, is a fertile source of just such difficulty as our patient here labors under. (To patient) What instrument do you play, sir?" Patient, "The bass drum!"—*The Cincinnati Lancet and Clinic*.

Chloral as a Vesicant.

Mixed with gum tragacanth into a mass and spread on paper, it produces a blister without pain when applied to the skin. It, by the absorption of a portion, causes the patient to fall asleep during its application. Its action is mild, though not as uniform as cantharides.—*Medical Record*.

Pruritus Pudendi.

Dr. McCall Anderson has recently called attention to a combination that has served a good purpose in this distressing and often intractable symptom, viz., thirty grains each of camphor and chloral hydrate in an ounce of simple cerate, or similar excipient.

The Physician.

The following is a translation of an epigram written by Cordus, in the sixteenth century :

The physician like an angel seems
When he in the sick-room brightly beams ;
And like unto a god is he
When he's removed the malady.
But in a different light we view
The doctor when his bill is due ;
Our alter'd eyes we at him level,
As though he were the very devil.

EDITORIALS.

"WHAT IS WANTING."

It is an old and true saying that wants increase as the means of supplying them multiply; in other words, the more we have the more we must have. This is true not only of individuals, but also of communities and nations. It is applicable to corporations, societies and churches, and is equally true of schools or systems of medicine.

Not only do wants increase in numbers, but they change in character. The needs of this year are quite different from those of last year, and vary still more widely from those of ten, twenty or forty years ago. Some of our good brothers of the Eclectic school do not seem to recognize this fact, and deem it their solemn duty to be forever flaunting the "bloody shirt." They launch out in tirades against blood-letting, when venesection is no longer practiced by any school of medicine. They seek to revive old issues which were irrevocably settled years ago. Like "Don Quixote," they expend an immense amount of energy in doing valiant battle against wind-mills; but are blind to the real dangers that threaten, and unconscious of the real wants of the hour. No wonder "Sancho Panza" laughs.

It is a most beneficent provision that implants in human nature new and constantly-increasing desires. Were it not so, advancement would be impossible, and society would come to a stand-still. The man who has no new wants inevitably becomes a garrulous, self-complacent fossil, and that school of medicine which is satisfied with present attainments, which is not conscious of new and increasing needs, and which does not strive to make adequate provision for such needs, has survived its usefulness. Such men and such schools either sink into merited oblivion at once, or, for a time, maintain a semblance of life by making believe that the needs of to-day are the same as those of forty years ago, about which they are never tired of harping in melancholy, played-out strains.

We have no hope of being able to bring such minds to see the pressing needs of the hour, but think it not amiss to men-

tion some of the things that are wanting now in this year of our Lord, 1879.

First of all, we want our physicians to be carefully and thoroughly educated. Public opinion now demands this. Formerly, the people were satisfied, apparently, with shallowness, ignorance or an assumption of knowledge, and employed the doctor whom chance threw in their way, asking no questions. At length, they have come to realize that medicine is the most difficult of the learned professions, and to demand protection against pretenders. In obedience to this demand, most medical schools, of all denominations, have decided to require a longer attendance upon lectures, to lengthen the terms of study, to make examinations more rigid, and, in short, to make use of all reasonable means to prevent incompetent men from attempting to practice the healing art.

Eclectics should be foremost in this endeavor "to exalt the professional standard." The one thing above all others that has brought reproach upon Eclecticism is the fact that ignorant and unprincipled men have, in times past, endeavored to achieve a respectable standing by calling themselves Eclectics. The Indian doctor, the root doctor, the medium and clairvoyant; men who, in many cases, have never attended any medical college, have often enrolled themselves as Eclectics. Hence, in many parts of the country, Eclectics are considered below par, and to many people the name is almost a synonym for illiterate and ignorant quacks. That the graduates of our schools are fully equal in literary and medical attainments to those of other schools, we firmly believe; but we want to be able to say more than that; we want our graduates to be first and foremost in the rank and file of the profession at large. Let it once become known that the graduates of our schools surpass all others in quality, and there will be no lack of numbers, as one learned professor seems to fear; for then ambitious young men will flock to our schools in preference to all others, and esteem our diplomas as something more than mere licenses to practice.

We are sorry that the Eclectic schools are not a unit in the effort to promote a higher medical education, and that one in

particular seems disposed to degrade the standard, already too low—advertising to graduate students after two years of study. We believe that a policy so short-sighted and mercenary cannot long be sustained.

In the second place, we want more liberality and less sectarianism; more regard for the physician than for the name by which he is called; less cracking of the party whip because somebody don't believe in my "specifics" or buy my books, and at least a faint idea that somebody else may be partly right as well as myself. We want more books and better books by our own authors, fewer plagiarisms from Rademacher, and less coquetting with Homœopathy. We want to eschew vulgarity, slang and bad grammar, and cultivate modesty, courtesy and charity.

TREATMENT OF NASO-PHARYNGEAL CATARRH.

AN ABSTRACT FROM THE QUARTERLY REPORT ON
LARYNGOLOGY.

Although the necessity for treating internally every disorder of the system is earnestly urged, the successful treatment of catarrh is largely confined to local applications.

Always in treating a diseased surface, cleanliness is the the chief requisite. The fact that alkaline solutions have a solvent effect on mucus is utilized, and all of the cleansing solutions contain some form of alkali; and as in many cases there is a decomposition of the retained secretion, an antiseptic or disinfectant is used. Any combination of these two medicines, in weak solution, will answer; but that which seems to be as efficient as any is Dobell's solution:

R. Acidi carbol.....3 iss.
Sodii biboratis,
Sodi bicarb., āā.....3 ij.
Glycerinæf ʒ ij.
Aquæ ad.....f Oij.
M.

It is used with the atomizer, the post-pharyngeal syringe and the nasal douche. The best method of using the cleansing solution is with the post-pharyngeal syringe, which is both safe and efficient. The solution can also be used in a spray

driven by compressed air, either by a hand-ball atomizer or a pump and receiver. The last is very efficient when used with about thirty pounds pressure, and will dislodge mucus from the superior meatuses and even the entrance of the sinuses. It is better for children than the post-pharyngeal syringe.

The next step in the treatment is the application of the medicine adapted to the case, which is made in the form of spray, powder or solution. The spray spreads out in every direction and reaches cavities otherwise almost inaccessible, and is therefore the choice method. In simple catarrh, the object in view is to reduce the amount of inflammation, by the use of astringents. Select astringents of different strengths and kinds to suit each case. For a standard astringent, sulphate of zinc, gr. xv.—aq. ℥j, is a good one. If the case be a mild one, do not use it stronger than three grains. If the catarrh be of long standing, see the patient three times a week, and in the intervals let him use the cleansing solution home, with Delano's atomizer or the post-pharyngeal douche. Ferric alum, gr. v.—xx. to aq. ℥j, is valuable when there is excess of secretion and little sensibility. Chlorate of potash, nitrate of silver, tannin and chloride of zinc may be used. Ring the changes on the astringents until a good one is found, and stick to it. When pain, lasting longer than half an hour, follows the use of the astringent, use a spray of U. S. solution of morphine. When there is hypertrophy to deal with, stronger applications are needed. Caustics can be applied with a probe, one end of which is tightly wrapped with cotton. The hypertrophied tissue must be destroyed; crushing it with forceps, cutting it with a knife and galvano-cautery are allowable. The polypoid thickening of the ends of the turbinate bones can be touched with caustics, applied by means of a probe passing through a shield. Curette the vault when there is adenoid degeneration.

DRUGGISTS' ADVERTISER.

From a circular letter just received, we learn that the *Advertiser* is to be discontinued, the manager, William G. Mortimer, having associated himself with H. K. & F. B. Thurber

& Co., in the drug trade. The journal was an interesting periodical to druggists throughout the country, and we regret to part with it.

BOOK NOTICE.

MEDICAL CHEMISTRY. Including the outlines of Organic and Physiological Chemistry; based in part upon "Riche's Manual de Chimie." By C. GILBERT WHEELER, Professor of Chemistry in the University of Chicago, etc. Philadelphia: Lindsay & Blakiston. Chicago: S. J. Wheeler; 1879. 12mo; pp. 424.

Mr. Wheeler's book will be welcomed by many a practitioner of medicine who, dissatisfied with his little stock of chemical knowledge acquired in the lecture-room, has sought in vain for further light from ordinary text-books.

The author has collected for us the latest and most reliable information in regard to organic and physiological chemistry, analysis of urine, urinary sediments and calculi, and also general chemical pathology. Much that has been heretofore inaccessible to the ordinary student is brought within the reach of all by this admirable work. It should stimulate teacher and pupil to strive for a more thorough knowledge of one of most fundamental of the medical sciences.

SOCIETY MEETINGS.

ILLINOIS STATE ECLECTIC MEDICAL ASSOCIATION.

PROGRAMME FOR THE YEAR 1879.

The Eleventh Annual Meeting will be held in Representative Hall, in Springfield, Ill., on the first Wednesday in June, 1879.

In presenting the following programme, we, the committee on same, *earnestly request and hope* that every member of our Society will feel it their duty, as far as they may be able, to be present, and to contribute, as far as they possibly can, to make our meeting pleasant and profitable, and our Society a success.

We also hope that those to whom have been assigned the subjects for essays will find no excuses, but be present

promptly and fully prepared to discharge the duties assigned them, and that they will feel the receiving of programme sufficient invitation for same, without special written solicitation from our Secretary; and, unless we, as members, have the good of our cause sufficiently at heart, to do this, we need not hope for a successful or rapid development as a Society. We also feel that the essayists are generally able writers, and that those who do not avail themselves of the opportunity of being present will miss much that is interesting and instructive.

The Committee of Arrangements report as headquarters, either the Leland Hotel, at \$2.50, or the St. Nicholas, at \$1.50 per day. Members of the Society can take their choice.

PROGRAMME.

1. Opening Address—Dr. A. L. Clark, of Chicago, Ill.
2. Medical Chemistry—Dr. H. D. Garrison, of Chicago, Ill.
3. The value of Malt, and its compounds as a remedy—Dr. Albert Merrell, of St. Louis.
4. Dropsies and their treatments—Dr. Long, of Murrayville, Ill.
5. Unity of underlying conditions in zymotic diseases—Dr. A. C. Stewart, of Jacksonville, Ill.
6. Diseases of the Rectum—Dr. Thrailkville, of St. Louis, Mo.
7. Diseases of the Cornea—Dr. Henry Olin, of Chicago, Ill.
8. Diarrhoea and its sequences—Dr. Milton Jay, of Chicago, Ill.
9. New remedies—H. Wohlgemuth, of Springfield, Ill.
10. Medical Jurisprudence—Dr. Dye, of St. Louis, Mo.
11. The more common forms of nervous diseases—Dr. G. C. Pitzer, of St. Louis, Mo.
12. Nasal Catarrh—Dr. Rutledge, of St. Louis, Mo.
13. Intermittent Fever—its cause and treatment—Dr. R. F. Bennett, of Litchfield, Ill.
14. Pneumonia—the latest features in its treatment—Dr. W. A. Shriver, of Virden, Ill.

15. Cholera Infantum—Dr. White, of Bloomington, Ill.

Those who may be unable to attend will please forward their dues or fees promptly.

Respectfully,

A. W. FOREMAN,

R. F. BENNETT,

WM. D. TURNER,

Committee on Programme.

OHIO ECLECTIC MEDICAL ASSOCIATION.

The Fifteenth Annual Meeting will be held at Cleveland, Ohio, on Thursday, the 17th day of June, 1879, commencing at 2 o'clock P. M.

Drs. E. A. Thomas, A. G. Springsteen and Henry Parker, Committee of Arrangements, have reported the American House as headquarters, at \$2 per day, including rooms and the use of parlors, etc.

Important business will be presented at this meeting. At the last Annual Meeting, Drs. H. L. True, J. Anton and J. T. McLaughlin were appointed a committee to revise our Constitution and By-Laws, and frame a programme for the transaction of business at the Annual Meeting. Hence the importance that all members of the State should be present.

The officers have flattering reports from all parts of the State. A full attendance and an interesting meeting is confidently anticipated.

By consequence of the revision of the Constitution and By-Laws, a programme cannot now be announced; but all will be arranged before the hour of meeting. It is important that every member of the Association should be present, and every Eclectic Practitioner should make an effort, and sacrifice, if necessary, to attend this Annual Meeting.

From the numerous papers pledged to be read, we select a few as samples:

Prof. John M. Scudder, subject, optional.

Prof. A. J. Howe, subject, Surgical Emergencies and How to Meet Them.

Prof. S. H. Potter, subject, Scrofula.

A. G. Springsteen, M. D., subject, Syphilis; and many other papers promised with the subject not announced.

Let every one come prepared with some item of interest to himself, and that will assuredly add interest to the Association.

Our standing in the State is assured, and to maintain our position we must sustain our District and State Organizations.

We have, in many localities, revolutionized the practice of medicine of former years, and to extend this influence throughout the State, should prompt every Eclectic to come promptly to the work.

Respectfully,

HENRY PARKER,
C. MARKT,
R. P. ANDERSON,
BEREA, April 10, 1879.

J. T. McLAUGHLIN,
C. G. CRUNSTON,
JAMES ANTON,
Executive Committee.

INDIANA.

INDIANAPOLIS, Ind., April 8, 1879.

Dear Doctor: We take pleasure in presenting you with the enclosed Programme of the Fifteenth Annual Meeting of the Indiana Eclectic Medical Association, which will convene in this city on the second Wednesday and Thursday, May 14 and 15, 1879. We hope no member of our Association will fail to attend this meeting, as it promises to be one of unusual interest.

Especially do we urge all Eclectic Physicians in the State, whether members of the society or not, to attend this meeting, as various subjects of interest and importance to Eclectics will be presented.

A most cordial invitation is extended to all progressive Eclectic Physicians.

Headquarters, No. 118 North Illinois street.

G. W. PICKERILL, M. D., *Secretary.*

W. F. CURRYER, M. D., *President,*

Thorntown, Ind.

PROGRAMME.

Annual Address.—W. F. Curryer, M. D., President, Thortown.

Topics General.—W. H. Kendrick, M. D., Indianapolis.

Theory and Practice of Medicine.—T. S. Motter, M. D., La Fayette; W. S. Canfield, M. D., Frankfort.

Surgery.—J. B. Shutz, M. D., Logansport; J. F. Wall, M. D., Clark's Hill.

Obstetrics.—C. Hector, M. D., Rochester; J. S. Taylor, M. D., Logansport.

Chemistry.—E. Muck, M. D., Hillsdale; J. J. Camron, M. D., Indianapolis.

Gynaecology.—J. S. Cowdrey, M. D., La Fayette; N. L. Isgrigg, M. D., Indianapolis.

Diseases of Children.—W. H. Melrath, M. D., Coal Bluff; L. Abbott, M. D., Indianapolis.

Materia Medica.—J. G. Vandewalker, M. D., Millroy; P. M. Layne, M. D., Crawfordsville.

Medical Jurisprudence.—H. Long, M. D., Indianapolis; S. Frazee, M. D., Perrysville.

Action of Medicine.—S. B. Fisher, M. D., Rossville; T. H. Wade, M. D., Stockwell.

Progressive Medicine.—G. W. Pickerill, M. D., Indianapolis.

New Remedies.—J. R. Duncan, M. D., Crawfordsville; C. H. Abbett, M. D., Indianapolis.

Medical Legislation.—W. H. Kendrick, M. D., Indianapolis; N. G. Smith, M. D., Lewisville.

Present Status of Eclectic Medicine.—The entire membership.

SECOND ANNUAL MEETING OF THE WISCONSIN STATE ECLECTIC MEDICAL SOCIETY.

The second annual meeting of the Wisconsin State Eclectic Medical Society will be held in the city of Janesville, Wis., at Lappin's Hall, Thursday, June 5, 1879.

In presenting this notice, we do earnestly hope that every member of the Society will be present. Let every progress-

ive, liberal-minded Eclectic in the State, who has the good of the profession at heart, lay aside his business for one day and attend the meeting.

The President has appointed the following subjects for remarks and essays, to be read at the coming session:

C. O. Jennison, M. D., Milwaukee, "On the Heart;" Dr. H. D. B. Dustin, Markesan, "Obstetrics;" Dr. C. C. Blanchard, Delavan, "Diphtheria;" Dr. R. H. Stetson, "The Lungs;" Dr. H. B. Laffin, La Crosse, "Case in Practice;" Dr. C. M. Poff, "Malarial Fever;" Dr. C. M. Culver, "Typhoid Fever;" Dr. P. W. Blanchard, Sharon, "Scarlet Fever."

A number of the Faculty of Bennett Medical College will be present.

Physicians who are strangers in the city will please call at the President's, Dr. S. S. Judd's office, and he will gladly give them all the information required.

C. C. BLANCHARD, M. D., Cor. Sec.

DEHAVAN, Wis., May 1, 1879.

ECLECTIC MEDICAL SOCIETY OF THE STATE OF NEW JERSEY.

The sixth annual meeting of the Eclectic Medical Society of the State of New Jersey was held at Pythian Hall, Newark, May 8, 1879. After the transaction of routine business, the Society proceeded to complete its corporate organization, as prescribed by law.

The following officers were elected for the ensuing year: President, Davis P. Borden, M. D.; Vice President, A. Wilder; Secretary, A. W. Taft, M. D.; Treasurer, Geo. Merker, M. D.; Censors, Drs. M. Robinson, G. M. Beatty, S. P. Taft, D. P. Borden, Jonathan Sweet.

Dr. L. H. Borden spoke of the discussion on vaccination, had at the last meeting, as being interesting and of much importance. He would, however, like a consideration of small-pox itself—what it is and what essential difference it has from other complaints; indeed, the disease itself, as such, needed defining.

In pursuance of a resolution then offered and adopted, Drs. L. H. Borden, A. Wilder and M. Robinson were designated by the President to prepare reports upon small-pox for the October meeting.

On motion of Dr. Beatty, part of the next session was set apart to the consideration of yellow fever.

The meeting transacted further business and adjourned, to meet in October next.

TO THE ECLECTIC MEDICAL PROFESSION OF THE STATE OF KANSAS.

In order to strengthen and protect the Kansas Eclectic Medical Association, and make it (as we must) a credit to its members and the State, and an honor to our system of medicine, it is necessary that every one in Kansas become active (or at least supporting) members; therefore, we want every Eclectic in the State enrolled as a member of the association, and also solicit as members those of any other school of medicine who are qualified and cherish liberal views in the profession, and are in accord with our system of medication, and will unite and work with us in our efforts to advance the science of medicine and surgery; to create good will and harmonious action between its members, and to enlighten and protect each other. Then every member should consider himself a committee of one, to work for the good of the society. There was a resolution passed at its last session, authorizing the Secretary to issue its certificate to and enroll as members (subject to the approval of the association at its next session, the second Tuesday in February, 1880, at Topeka) all who send to its Secretary a recommendation from any one of the members of the association, or the State examining board, or other evidence of qualification, with a fee of \$2 as membership and certificate fee, and \$2 as annual dues (to next session). Any who have or are entitled to a State Medical Certificate, under the requirements of our late medical law, may also become members of the association, and are respectfully solicited to do so. At an extra session of the Association at Topeka, April 3, 4 and 5,

our State Medical Board was fully formed to comply with the recent medical law passed by our Legislature at its last session, and approved Feb. 27, 1879. The members of the Board are: P. I. Mulvane, M. D., Topeka, President of the Board; R. W. Wright, M. D., Oswego; Noah Simmons, M. D., Lawrence; Wm. McMullen, M. D., Burlington; Henry Owens, M. D., Wichita; Milton Welch, M. D., La Cygne; A. M. Eidson, M. D., Topeka, Secretary of the Board.

Those who are graduates from a reputable medical institute (of any school of medicine) (see Medical Law, Sec. 3), and those (of any school) who have been in the continuous practice of medicine in Kansas for five years prior to June 1, 1879 (see Sec. 12, last proviso, etc.), can have State Medical Certificates that will fulfill the requirements of the law, sent to them, by making affidavits of the same and send to the Secretary of the Board with the prescribed fee, \$5. All who hold membership certificates of the Association are also entitled to a certificate from the State Board, by sending application to the Secretary with the same fee. (Or any applications may be presented or or sent to any members of the State Board, who will forward the same to the Secretary.) Those who are not graduates of any school of medicine, and who have not been in continuous practice in Kansas for five years prior to June 1, 1879, must come directly before the Board for examination, and of *this class*, this Board will not examine any but those who practice Eclectic medicine, and the Board will accommodate them with its meetings as near as possible on any member of the Board or the Secretary receiving their applications and fee. The recent State law will be in force on and after June 1, 1879. The State Association and Eclectic State Board urge upon all the members of *our* profession a strict compliance with the law, as we understand that another school proposes to have a meeting by one or more of their board held in each county, so as to make every one liable to the force of the law, who does not possess a certificate from one of the boards, and fails to apply for one.

P. I. MULVANE, M. D., President of the Board.

A. M. EIDSON, Secretary of the Board.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

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CHICAGO, JUNE, 1879.

No. 3.

ORIGINAL COMMUNICATIONS.

[XIV.]

IRRITABILITY OF THE FEMALE BLADDER.

BY PROF. A. L. CLARK, M. D.

In this article I propose to call attention to or group some of the causes which may produce the symptom "irritable bladder." Every practitioner meets weekly, if not daily, with patients presenting this symptom, and characterized by frequent and more or less painful urination, scalding during, or tenesmus after, micturition, the quantity voided at each time being small.

Sometimes intractable, often perplexing in treatment, the rule holds equally good in this, as in other cases, that when a disease or condition is properly diagnosed it is half cured.

The symptom under consideration pertains to two principal classes of vesical disorder. 1st, Functional. 2d, Structural. Among the functional causes may be enumerated:

- 1st. Neuroses.
- 2d. Abnormalities of the urine.
- 3d. Inflammations of neighboring viscera.
- 4th. Malpositions of the bladder.
- 5th. Malpositions of the uterus.

It should be first premised that in this consideration all causes are considered *functional* where there exists no determinable lesion of the bladder.

Neuroses.—Although some have considered that diseases of the nervous system were quite rare causes of irritable bladder, I feel convinced that very many such cases exist. The subjects are for the most part nervous, or of nervous temperament, excitable, cachectic and in reduced health, and are often classed as hysterical. Indeed the frequent urination, sometimes copious in quantity, with which hysterical patients are sometimes affected, no less than the involuntary escape of urine often occurring in consequence of great fear or mental emotion, is a direct proof of the influence of the nervous system over the functions of the bladder. As a corollary to this proposition, it follows that lesions of the brain and spinal cord may prove causative in the class of disorders under consideration.

Abnormalities of the Urine.—Normal urine possesses a certain definite composition, and for its retention the bladder is designed and fitted. Any material deviation from its typical form causes it to become to a certain extent, a foreign substance, and as such to exert a deleterious effect upon the bladder. Thus, if it be too strongly acid or alkaline, of too high or low specific gravity, it will become a source of irritation. The deposit of various of its constituents, as uric acid, the triple phosphates, the oxalate of lime, etc., owing to some peculiar condition of the urine favoring such precipitation, may render the fluid irritating.

Various disturbances of the digestive apparatus incline both to the production of acid or alkaline urine and to the deposition of irritating crystals. As a diagnostic point, it has been stated that where the bladder maintains a constant irritability under varying degrees of acidity, alkalinity and density, the disease may be considered as of neurotic origin.

Inflammations of Neighboring Viscera.—Acute metritis, pelvic peritonitis and cellulitis may, in some unexplained way, but probably through nervous sympathy, produce great irritation of the bladder. The increased bulk of the inflamed structures may, also, to some extent, contribute to the same end.

Malpositions of the Bladder.—The bladder is subject to extroversion through the urethra, though rarely, and may be

dislocated upward, downward, laterally, backward and forward. Where, from previous adhesions, the normal relative mobility of the uterus and bladder has been destroyed, the rise of the gravid uterus in the abdomen, may be accompanied to some extent by the bladder. The growth of ovarian tumors with antero-pelvic adhesions may also produce a similar effect. Perhaps most common, and certainly most important of these dislocations of the bladder, is the downward displacement known also as vaginal cystocele. A variety of causes predispose to this condition, among which may be enumerated rapid and continuous child-bearing, a relaxed or ruptured perineum, a relaxed sphincter vaginæ, long continued vaginal leucorrhœa, producing a relaxed condition of the vaginal walls, the presence of calculus in the bladder, advanced age, lifting heavy weights, etc., etc.

Malpositions of the Uterus.—It is a fact so familiar as to scarcely need mention, that the anterior displacements of the uterus by pressing upon the bladder, may cause irritability of that organ. In like manner, but not so frequently, the backward displacements of the uterus may produce the same symptom. Occasionally downward dislocations may interfere with the functional action of the bladder; I have no evidence that the rare lateral displacements are productive of any marked discomfort in this respect, yet should not consider it an impossibility.

Structural Causes.—Of structural causes we may have :

- 1st. Hyperæmia of the bladder, if the urethra be involved.
- 2d. Cystitis, acute and chronic.
- 3d. Vesico-urethral fissure.
- 4th. Neoplastic growths.
- 5th. Foreign bodies in the bladder.
- 6th. Hypertrophy of the bladder.
- 7th. Atrophy of the bladder.

Hypercæmia.—An engorged condition of the capillary blood-vessels of the cystic lining membrane, if it reach to and implicate the urethra, will give rise to the symptom under consideration. It can be most easily and certainly diagnosed by endoscopic examination.

Cystitis.—Inflammation of the bladder presents subjective and physical indications which make its diagnosis easy. The characteristic dull, heavy pain referred to the region of the bladder; the frequent micturition with tenesmus—and as the disease progresses, the purulent urine containing epithelial scales from the bladder make, with many other symptoms familiar to all, a certain diagnosis.

Vesico-Urethral Fistula.—Somewhat analogous to and resembling fissure of the rectum, is a fissure which is sometimes found situated partly within the urethra and partly in the bladder. The symptoms to which it gives rise are quite similar to those produced either by cystitis or urethritis—the pain in cystitis being usually slightly relieved by urination, while in fissure its greatest intensity immediately follows that act. By introducing a catheter, and allowing the first flow of the urine to escape, carrying with it any pus caught by the instrument in its introduction, and reserving the subsequent flow for examination, the absence of any evidence of inflammation will serve to exclude cystitis. Careful endoscopic examination will differentiate the difficulty from urethritis. In fissure the pain is usually more circumscribed than in cystitis or urethritis.

Neoplastic Growths.—Various forms of foreign growth occupy at times the female urethra, and give rise to frequent and painful urination. In all obstinate cases they should be sought for, and if discovered, appropriately dealt with.

Foreign Bodies in the Bladder.—The presence of calculi in the bladder may, of course, be a source of vesical irritability. In addition to this, the bladders of hysterical and masturbating women have often been found to be the receptacles for pieces of wood, slate-pencils, etc., introduced through the urethra. Occasionally, too, a catheter has been inadvertently deposited here by a physician, who, fearing to acknowledge the mishap, has preferred to pocket the loss. The introduction of a sound will usually enable us to detect them with a little care:

Hypertrophy of the Bladder.—By this is meant a gradual thickening of the walls of the bladder, especially the muscular portion. It may occur either with or without general dilatation of the organ, depending, perhaps, upon the cause. In

either case, the urine will probably be ejected with a somewhat spasmodic and painful effort.

Atrophy.—In old age, a species of fatty degeneration has been met with. Also in the case of women who habitually retain the urine until its pressure interferes with the supply of blood, and consequent nutrition, a thinning of the walls, the reverse of hypertrophy, and which has been termed atrophy. In this case, at first an inability to properly evacuate the contents of the bladder may be followed by a constant desire so to do, accompanied by pain and vesical tenesmus.

To speak of treatment for these conditions would involve an amount of space transcending the limits of this article; nor is it in most instances necessary, as the judgment of the practitioner will, when the nature of the difficulty is comprehended, usually be competent to properly prescribe. The object has been rather to call attention to some of the conditions causing a symptom with which we all frequently meet, and to thus afford some assistance to a systematic study of the pathological condition present.

[XV.]

THE MEMBRANA TYMPANI.

BY PROF. HENRY OLIN, M. D.

It has long been supposed, and is yet thought, that the tympanic membrane vibrates from the action of sound waves, and its presence is essential to hearing; but such is not the case, as I shall attempt to show in this brief article. In the first place, persons born without a tympanic membrane hear as readily as those with one. And again, the absence of it does not produce deafness where the cavity of the drum is not changed by disease. The membrana tympani is not elastic, but an absolutely inextensible membrane, chiefly composed of tendinous fibers. Its curved form renders it essentially different from all other membranes hitherto studied in acoustics. It will be seen that it is a concavo-convex membrane, and cannot vibrate without dislocation, and, being of a fibro-tendinous character and inelastic, would, by its vibration, produce such a crackling sound that all other sounds would sink into mere

nothing compared with the sounds itself would produce, were it to vibrate as physiologists tell us it does. I take the ground, then, that the object of the tympanic membrane is not for the purpose of vibrating and conveying sounds to the auditory nerve; but for the purpose of collecting sound, and also as a protection to the cavity of the drum; the same as the eye-lid is a protection to the eye-ball and its delicate mucous surface.

Every aurist that has had experience in the treatment of aural catarrh will readily agree with me that suppurative catarrh of the middle ear does not produce as complete deafness as non-suppurative; and yet, in suppurative catarrh, the drum-head may be entirely destroyed, while in non-suppurative catarrh the drum-head is never eroded. In the normal condition of the membrana tympani, its entire surface is perfectly dry and incapable of retaining foreign particles, and therefore cannot become covered with foreign matter; while if this protection to the drum cavity were not present, the atmosphere, laden with particles of foreign substance, would constantly accumulate in the mucous cavity, and set up an irritation which would often result in inflammatory action. In cases of suppurative catarrh and erosion of the drum-head, where a granulation of the mucous lining of the drum has taken place (with no other lesion), the hearing can be restored to a normal condition; but where a granulation of the cavity of the drum has taken place without erosion of the drum-head, the deafness is not so easily cured, for the reason that we cannot reach the parts through the tympanic membrane with our remedies, and the middle ear filling with mucous and granulation arrests the sounds, the same as a padded wall or a deadened floor. The object, then, of the membrana tympani is to protect the cavity of the drum from foreign matter, atmospheric changes, to gather sound and convey it to the ossicula auditus, and the air with which the drum cavity is filled. These last-named being a conducting media of sound to the auditory nerve. The human ear is, then, a telephone, constantly charged with electric force and always (in a healthy state) ready to convey messages of a pleasant or disagreeable character to the mind or brain.

[xvi.]

ON THE SPECIFIC MEDICATION OF CHOLERA
INFANTUM.

BY PROF. N. P. PEARSON.

The so-called summer complaint is yearly destroying thousands of little children, and still the medical authorities have not yet given us any settled idea of its real nature nor any very prompt and successful treatment. I shall here simply communicate my experience with it during eight years of steady attention to specific medication. I may, beforehand, remark that I shall treat the subject under the three headings—*diagnosis*, *pathology* and *therapy*; that, under diagnosis, I only give a sharp outline of the leading symptoms; under pathology, the nature, causes and course, but only what is of present and practical value for finding the remedy, and I only recognize such different kinds requiring a different remedy; in the therapy, I principally aim at the direct medication, and only accept the indirect when the other is impossible or greatly assisted by this; besides, I consider a close attention to the epidemical indication to be far more important than usually is done.

CHOLERA INFANTUM.

Diagnosis.—Frequent watery stools, accompanied by vomiting, rapid and great emaciation, high fever and mental dullness.

Pathology.—At first, we recognize a gastro-intestinal catarrh, for wherever the capillaries of the mucous membranes become overfilled with blood, we see the symptoms of a catarrh, namely, abnormal secretion, swelling and succulence of the tissue, shedding of the epithelia and proliferation of cells. Some pathologists have spoken of many different kinds, according to color, quantity and quality of stools; but this is of little or no positive value for the therapy, while we must admit the great importance of discriminating between idiopathic and sympathetic lesion, and also between epidemical and individual cause. We find, then, this catarrh generated in the following way: 1st, by *local irritation*, as from improper food or drink;

2d, *disease of the blood*, whereby the gastric juice may become impaired and cause irritation; 3d, sympathetic action from some near or distant organ, which may happen by collateral circulation or impeded function or reflex action, as the uræmic and bilious forms—the one from mental emotion, teething, etc.; but here I shall especially speak of the one also called the *summer complaint*. This is epidemic, or, rather, endemic, to the large cities of the United States; here in Chicago, during July, August and September, usually commencing about the 4th of July, for the cholera infantum before then is of a different nature. It becomes especially prevalent when the thermometer rises to and above 90°. It is not the heat alone, but the combined action of heat and impure air, that produces it—a peculiar atmospheric condition, or miasma, that only thrives by heat, like the yellow-fever miasma. It attacks the children, mostly, during dentition, and an erroneous diet may often start it. After lasting awhile, the catarrh is liable to become seated, or idiopathic, even ulcerative, the abdominal lymphatic glands affected, and a state of marasmus frequently is developed. Some cases run a rapid and easily-fatal course; others are protracted for several weeks, and may terminate in death from exhaustion or sequelæ. The specific medication decidedly points to the nervous centers as the place for the basic lesion, where, from these, the vaso-motor nerves excite the gastro-intestinal catarrh; and I have, during my practice with it, observed three different kinds. For when the apparently same disease for awhile most promptly yields to a certain remedy, then entirely ceases and again likewise yields to another, what has changed? The remedy or the nature of the disease? Certainly the last! of which I shall speak further in the therapy. Our summer complaint has, therefore, also been designated as brain-cholera, or brain-diarrhoea. The cerebral symptoms have long ago struck other physicians, and some cerebral lesions have been found at the post-mortem examination.

Therapy.—The summer complaint, I formerly treated in the usual way as a local disease, and according to the best authorities. I considered, however, opium a rather dangerous reme-

dy, and preferred small doses of podophyllin, ipecac, neutralizing cordial, and even calomel with chalk, or some astringent, and I always paid strict attention to the diet and hygiene. The disease often yielded somewhat, but I found it a very tedious and troublesome work to manage the case through. In the specific medication, I have used three of Rademacher's specific brain remedies; nicotiana, silver and zinc, and seen a wonderful difference, of which I never dreamt before. I am informed of other similar remedies, as gelsemium, ailantus, belladonna, aconite, etc., but I have never, in this disease, employed them myself. I have several times been called to desperate cases, given up by otherwise skillful physicians, and which I also formerly should have pronounced moribund. The little patients were entirely collapsed, with very cold extremities and very hot heads, but they recovered rapidly with the epidemic and charm-like remedy. I have also been called to families who formerly had lost child after child, but by this medication since kept all alive. It may be some trouble to find the right remedy in the first case, which here usually occurs about the 4th of July, but, whenever found, it will be the favorite one for the entire season. The little patient improves instantly, and the next day the intestinal excitement has subsided, the dullness and fever gone, the vanishing health returned; the eyes commence to sparkle with their cheerful and natural brightness, and further visits are seldom necessary. Strict attention must be paid to the diet and hygiene. The child must be dressed very lightly, sponged or bathed several times a day, enjoy as much fresh and pure air as possible, nursed by mother or wet nurse, if possible, or the most suitable feeding obtained. For drink, I like to give toast-water. Sometimes an irritable state of the bowels may continue from teething, which brom. pot. in mist creta usually allays, or form indigestion, where bismuth and pepsin help. Should the disease become more seated in the intestines, then we see the cases where the astringents; as kino, catechu, geranium, blackberry root, have gained reputation; but here, too, I have seen the epidemic remedy act like magic. In cases of decided anæmia, I have generally prescribed elix. calisaya ferri et bismuth;

for the lymphatic troubles I like aqua glandium quercus as a very suitable alternative for children.

The three mentioned forms were:

1. The *nicotiana form*, which is the most violent and fatal, having a rapid course, and appears very much like the Asiatic cholera; R carb. soda, 3 ss, plus aqua fontana, ʒ iss, plus aqua nicotiana (vide Scudder's Specific Med.) ʒ i, plus syr. acacia, 3 iii. Mix. S. One teaspoonful every hour.

2. The *silver form*.—This is more lingering and less acute, and I have met it more frequently than the other kinds. Chloride or oxide of silver may be given in doses of 1-10 gr., triturated with milk-sugar; but I have mostly prescribed R arg. nitras, gr. ½, plus aqua dest., ʒ iss, plus syr. acacia, ʒ ss. Mix. S. One teaspoonful every hour.

3. The *zinc form*, which I saw three years ago. The head was remarkably hot; there was often more vomiting than diarrhoea. The zinc is a well-known nerve remedy, and acts very much like the bromides. Williams and Fothergill also recommend it for night sweats, like the atropia. In the diarrhoea it may at the same time act locally. Of all the zinc preparations, the acetate is undoubtedly the best for internal use. R Acet. zinc, gr. ii or iv, plus aqua mentha pip., ʒ iss, plus syr. acacia, ʒ ss, M. S., one teaspoonful every hour.

I may further state, that with this medication, I never found it necessary to send a child into the country, nor to the lake-shore, nor upon boats, as I formerly did.

The prominent success with these and similar brain remedies in small doses, in comparison with all other treatment, speaks decidedly in favor of locating the basic lesion of our "summer complaint" in the nerve-centers, and I heartily invite other physicians to try it, but they must always bear in mind that our remedies usually act by spell or epidemically.

[XVII.]

THE NATURE AND TREATMENT OF NASAL CATARRH.

BY PROF. EDGAR READING.

It is remarkable to see with what facility the attention of the public is drawn in certain directions, and how susceptible

the masses are to fall in with the views of others, without hesitating for a moment to exercise any reason. The result is that "what everybody says must be so," is not always so by any means. Public opinion is frequently manufactured rapidly and very erroneously. Certain movements become extremely popular for the reason that they have had illustrious leaders. Different causes or motives goad us on to follow them. The more educated or refined a community, the greater slave it is to fashion. This phase of human nature is frequently manifested in certain popular diseases and the remedies offered for them. There is no doubt that a large proportion of the so-called invalids are afflicted with imaginary diseases. And imagination will frequently cause a disease in reality. We see such cases occur frequently during the prevalence of an epidemic. The foregoing remarks are made to explain why it is that we have so many cases of catarrh at the present time, and how it is that so many catarrhal remedies become so popular. There is no disease so common, judging from the expression of the people, as catarrh, and there is certainly no disease which is so frequently an imaginary one. The mental distress which it causes is certainly of no small consideration.

The epithelial membrane lining the nasal cavity is peculiarly and admirably arranged to fulfill the objects for which it was intended. It is very delicate and thin, so as not to obstruct the periphery of the olfactory nerve, which is so minutely distributed over its surface. This is necessary to enable the nerve to perform the function of olfaction. When this nerve becomes thickened, it prevents the odoriferous particles from coming in contact with the nerve and the sense of smelling is obstructed in proportion to the degree of turgescence, thickening and abnormal condition. In those animals in which the sense of smell is very acute, a thickening of this membrane, produced by either natural or artificial causes, will impair the sense of smell in proportion to the abnormal condition of the membrane.

It is evident in such cases that the high degree of development of the nerve is not changed, but the communication is partially or wholly cut off. Hence, then, the necessity for the

delicate organization of this membrane. It is so much exposed to the vicissitudes of the atmosphere, and the various irritating particles which it contains, that some provision is necessary to protect it, otherwise it would be kept in a constant state of irritation. This lubrication is provided for in the form of mucus. It is so constituted that its protecting properties are very great, while at the same time it will allow the odoriferous particles to pass readily through it. In a healthy condition of the parts it performs its work faithfully, but often to the great consternation of the individual.

If this secretion is sufficient to be noticed, which is very liable to be the case at times, they imagine that they are afflicted with that loathsome, offensive disease called catarrh. They infer that the stream of air which is constantly passing over it becomes impregnated with foul matter, which is constantly being taken into the system, producing disease, putrefaction and death.

It is very difficult, if not impossible, to convince them of the importance of this secretion to protect these parts. It naturally follows that such persons lose no time in making a selection from the scores of remedies offered to the public for the radical cure of catarrh. The mischief which this false impression is doing, is extensive and greatly to be lamented. In addition to the anxiety and suspense, it induces them to make free use of such application as will change the healthy membrane into a diseased one. How often we meet with patients who have used so many remedies without any benefit, but, on the contrary, they gradually grew worse and despaired of ever being any better. They have lost all faith in everything, and with them it is only a question of time when they will be deaf, blind, insane, or fill a consumptive's grave.

Physicians are frequently to be censured for not explaining the nature of things to their patients, instead of approving of their opinion and encouraging them in the continuance of such application as must necessarily be injurious, by irritating the membrane and ultimately producing a diseased condition of what might otherwise be considered a healthy condition of the nasal cavities and fauces. The pain and distress which the

frequent application of these so-called remedies causes is, in many cases, a serious affliction; and human flesh is heir to a large range of aches and pains which are too frequently multiplied and aggravated by the means resorted to for relief. The history of the healing art shows that it has always made use of a great many means of torture, and, as we become enlightened, we are astonished that people ever submitted to them.

There is no doubt but that nasal catarrh is of frequent occurrence, and, in many cases, becomes a serious disease; but I am fully convinced that there are many more imaginary than real cases. An aggravated form of nasal catarrh is a serious, loathsome and obstinate disease, and requires considerable patience, perseverance and skill in the successful management of it, but it may be considered a curable disease.

It is almost invariably a constitutional affection, but occasionally it appears to be local. Hence, then, the folly of local application without appropriate constitutional treatment. You may smother the disease for a time by a judicious use of local applications; but, the cause not being removed, it is only a question of time when it will manifest itself again, and, too frequently, with renewed energy.

After satisfying ourself as to the existence and character of the disease, we should endeavor to ascertain the cause and select our remedies accordingly. Then we can direct our treatment to the local affection with a reasonable hope of success.

The constitutional treatment should be detergent and alterative, followed up with tonics, mostly of the ferruginous kind. Pot. iod. may be considered almost indispensable, and I think that its effect is very much assisted by giving it in syr. stillingia comp., this to be followed with syr. iod. ferri, mur. tr. ferri, nitrogenized iron, iron by hydrogen, chlo. pot., etc., as appears to be particularly adapted to each individual case. A cold sponge-bath or cold douche every morning, if the vital energies will endure it, is of great benefit. Of course any irregularities of the system should be remedied.

The local treatment should be selected with a view to cleansing the parts, followed with alterative, astringent, lubricating

and soothing remedies. The cleansing is accomplished with a mixture of pot. chlo., chloride lime or carbolic acid, glycerine and aqua rosæ; the alterative, by inhaling the vapor of iodine. This may be readily formed by a mixture of—

R Iodine.....gr. xv.
 Chloroform.....3 ij.
 Æther sulph.....3 vi.

M. Put in 2 $\frac{3}{4}$ vial. S. Inhale a few inspirations four or five times a day.

The astringent remedies which I have found the most efficacious :

R Zinci sulph.....gr. x to xxx.
 Aqua dest..... $\frac{3}{4}$ i. M.
 R Syr. iod. ferri.....3 ss to 3 ij.
 Aqua dest..... $\frac{3}{4}$ i. M.

The aqueous dist. of hamamelis is also an excellent remedy. A powder of equal parts of chlo. pot., chloride sodium and sach. alba can sometimes be used to a great advantage. Also a powder, as follows :

R Cort. ulmus pulv.....3 ij.
 Hydrastis can.....3 ij.
 Sodæ chloride.....3 ij.
 Morph. sulph.....gr. i to ij.

M.

A great many other valuable preparations might be noticed, but from a judicious application of these I have derived the most benefit.

The word judicious here should be made very emphatic. The treatment will be a partial failure, and may even aggravate the disease unless particularly selected as to strength and the time and mode of application. The manner of making local applications is frequently productive of injury. The post-naso-pharyngeal syringe, the douche, the ante-nasal syringe, and some of the apparatus for making application with condensed air all require care in their use. The Eustachian tubes are liable to be injured, producing partial deafness and tinnitus aurium. The meatus and sinuses are susceptible of injury. The reflex action and concussion upon the base of

the brain is sometimes severe and distressing, and may be productive of more mischief than the original disease. But there is no trouble to be apprehended if sufficient care is used and the strength of the medicine is graduated to each individual case. As some cases are much more sensitive than others, it is always best to commence with weak preparations and gradually add to the strength. A change of climate is always advisable when practicable.

When ozena, polypus and other diseases peculiar to the nasal cavity exist, other remedies may become necessary.

[XVIII.]

SPECIFIC MEDICATION.

BY J. C. BURLINGTON.

The past decade has developed a certain and definite action of therapeutical agents hitherto unknown to medical science. The whole medical world is now alive to investigation, and ere-long we may expect the approach of the millennium, when the whole medical world will be liberated from the enthrallment of ignorance, bigotry and imperial assumption, and bask in the beautiful sunshine of reasoning between cause and effect, and rejoice in the full assurance of having solved the great problem between life and death. Prejudice never investigates—therefore never develops anything beneficial to man. Investigation is the only sure method of developing truth, and truth is the *only* sure basis of intelligent action.

Therefore, when Prof. A or B develops, or, rather, advances, an idea or or a theory, I do not readily *swallow* the *dose*, but investigate it for its truth or falsity, that others may be benefited thereby.

Just here the question forces itself upon me—are there specifics in medicine? Without stopping here to answer the question, I will say that previous investigation has shown that by a peculiar and selective affinity, the *tricocephalus dispar* is found only in the cæcum; the *strongylus gigas* in the kidney; the *ascaris verm* in the rectum, and the *trichina* in the muscular tissue.

Again, ergot, by the same selective affinity, acts specifically upon the uterus; bromides, upon the brain; strychnia, upon the spinal cord; podophyllin, upon the coeliac plexus, and various other remedies upon the muscular and mucous tissues.

And again, by this same process of selective affinity, we find bone, cartilage, nerve and muscular tissue, as well as the fluids of the body, developed from the same ingesta.

I, therefore, deem it unnecessary to carry the illustrations further, to show that certain drugs have a direct tendency to or special affinity for particular organs or parts. This, in the abstract, is specific medication.

I am called to a patient; find the pulse full and frequent, temperature high, face flushed, pupils contracted, patient delirious; active hyperæmia. I give veratrum vir. and gelsemium, and in a few hours the symptoms are all ameliorated; then, with a few doses of quinia or other proper nerve tonic, my patient is well.

Now, this is no hypothetical case, for we have all had numbers of just such cases.

But is this specific medication? I answer, so far as it goes, it is. But it is not all of it. At any rate, it is far superior to what it was fifteen years ago, when, for the same condition and symptoms, I would exhibit calomel, blister down the spine and abstract sixteen ounces of blood and give him an "ice cap for his pains."

But I am asked, In what way is your treatment specific? I am tempted to answer, like the Yankee, by asking in return, In what way does your calomel and venesection relieve the patient? But I will not ask it, inasmuch as you will throw the whole blame on the *liver*, and we have already had that gland abused quite enough. Veratrum acts specifically upon the cardiac and vaso-motor nerves, lessening their irritation, thereby producing sedation. Gelsemium acts specifically upon the capillaries of the brain, lessening determination thereto, and removing inflammatory action by dilatation of the capillaries and the removal of venous stasis.

The reasons are not only plain but physiological, and will stand the test in any country or climate.

Now what we want, as the leading system of practice in this country, is advancement. Let it be our constant theme and study. Let us prove all things, and hold to that which is good. Let us elevate our profession, by elevating ourselves in intelligent research, and make ourselves respected and honored by our superior knowledge, and success will be ours.

ATTICA, Ind., May 20, 1879.

[XIX.]

DISEASES OF THE EYES.

[Excerpts from Prof. I. J. M. Goss' Practice of Medicine now preparing.]

(Continued from page 71, May No.)

OPHTHALMIA SYPHILITICA.

It is not unfrequently the case that persons afflicted with syphilis have this form of ophthalmia. There are two distinct forms of this disease, that is, gonorrhoeal ophthalmia and syphilitic ophthalmia. The gonorrhoeal form is brought on either by the suppression of the discharge of the urethra in the inflammatory stage of the disease, or by the introduction of the discharge into the eyes accidentally in some way. The inflammation first attacks the conjunctiva, which rapidly swells to such a degree that it not only surrounds the cornea like a wall, but even overlaps and covers it completely, giving the eye the appearance of a piece of raw flesh. Very frequently, the iris and cornea both become involved in the inflammation, and the disease is then of such an aggravated character that the coats of the eye may become perforated, discharging the entire contents in a day or two. Ophthalmia syphilitica, strictly speaking, is a mere symptom of chronic syphilis. It is apt first to attack the iris, changing its natural color into a brown, with reddish spots. These spots soon form uneven protuberances, looking like condylomatous excrescences upon the eye. The pupil soon contracts and becomes much distorted, especially toward the inner canthus. Around the cornea, there appears a deep-seated, reddish, inflamed ring, and the aqueous humor becomes opaque. The ciliary vessels become pale-reddish, and other symptoms of congestion appear, so that

this form of ophthalmia may be easily diagnosticated at any time.

Treatment.—Where there is a puriform discharge, lids thick, swollen, granulated, and degeneration of the conjunctiva, 1 grain of nitrate of silver, or 1 grain of permanganate of potash to the ounce of water, should be applied three times a day; and at the same time, 1 $\frac{3}{4}$ of tincture of phytolacca, 1 $\frac{3}{4}$ berberis aquifolium, and 1 $\frac{3}{4}$ of stillingia, 5 $\frac{3}{4}$ water; dose, 1 $\frac{3}{4}$ three times a day, should be used to cleanse the blood of the virus of either of these diseases. In ophthalmia syphilitica, I frequently give syr. stillingia $\frac{3}{4}$ iii, iod. pot. 3 ji, in doses of one teaspoonful three times a day, and alternate that with the above vegetable alteratives, especially if there be condylomatous excrescences on the iris, or on the edge of the lids. The pupil should be constantly dilated with a strong solution of atropia. If there are pustules on the cornea, bichromate of potassa, 1 grain to the ounce of water, may be applied three times a day to relieve this condition.

CHALAZION—TARSAL CYST.

This is either a once-inflamed sebaceous gland or a common sty, which did not discharge its contents, but became indurated in time. They generally occur on the edge of the lid.

Treatment.—I usually open them, and they then disappear; if not, then I give a few drops of tincture of thuja occ. three times a day, and bathe the part in the same.

TYLOSIS—CALLOSITY OF THE LIDS.

This is an induration of the Meibomian glands, causing the edge of the lid to harden, which makes it round and uneven. The sound eye-lashes fall out, and a few thin hairs grow upon the lid in inward direction, causing constant irritation. This condition generally follows a blepharitis that was neglected.

Treatment.—The internal use of rhus tox. in doses of 3 to 5 drops three times a day, and a wash of borax, 2 to 3 grains to the ounce of water, will generally cure this affection. The internal use of spigelia, also, is a good remedy; it has a natural affinity for the eye.

ONYX—ABSCESS OF THE CORNEA.

This is known by a yellow spot in the cornea.

Treatment.—The abscess should be punctured and a solution of argenti nit., 40 grs. to the ℥, applied. Alteratives and tonics should be given and the eye bathed in warm water. These remedies will generally cure the disease.

HYPOPYON—SUPPURATION OF THE EYE-BALL.

This is a collection of pus in the anterior chamber, and is caused by either an abscess of the cornea or an inflammation and consequent purulent deposit in the iris. It may be distinguished from onyx by the following particulars: Hypopyon has pus behind a perfectly transparent cornea. But in onyx, pus may form at any point of the cornea, and causes opacity.

Treatment.—Paracentesis of the cornea, with the evacuation of the aqueous and pus is one of the best means for the relief of this affection. The eye may be bathed in a lotion of 2 grains to the ounce of atropia, to produce absorption. The eye bathed in hot water will retard suppuration and aid the cure.

STAPHYLOMA CORNEA.

In some cases, from severe inflammation, the cornea and iris grow together, and the cornea becomes changed in its texture, and, at the same time, the aqueous humor increases in the posterior chamber, causing the cornea to bulge out in a conical form, producing partial or complete loss of sight.

Treatment.—Paracentesis will arrest this affection, if not, the eye-ball must be amputated.

CATARACTA LENTIS ET CAPSULÆ—LENTAL AND CAPSULAR CATARACT.

By this is understood a dimness or opacity of the lens and its capsule, by which the sight is either partially or totally destroyed. The ophthalmoscope reveals a grayish, opaque, convex body—the lens, immediately behind the pupil, which lessens transparency of the pupil in proportion to its density. This affection comes on gradually, taking several months for its maturity. The patient can always see better in cloudy days, or near night, because the pupil is then more dilated. When the cataract is completed, we see a dark ring encircling the grayish

body, which is the shade falling from the iris upon the opaque lens.

Treatment.—This disease is generally referred to the surgeon or oculist, but it may be often retarded, and sometimes even cured. After acute inflammation of the eye, belladonna in five-drop doses three or four times a day often does good service. If the disease take place in a strumous constitution, iodide of potassium will aid the cure. Phosphorus is a remedy of much power in this disease. Extraction is now resorted to by the best surgeons.

GLAUCOMA.

This is a morbid condition of the choroid tunic, causing a sea-green opacity deep in the fundus of the eye, which appears as if it was concave. The vitreous humor assumes a greenish color in some bad cases. As the disease advances the pupils become enlarged and distorted, the iris also becomes discolored, the cornea dim, and the sclerotica staphylomatous, and the sight is more obscured than the greenish opacity would seem to warrant. The patient can only see by a strong light. The disease progresses slowly in some cases, in others very rapidly, and affects finally both eyes, though it may start in one eye at first, seldom both at once.

Treatment.—Phosphorus offers the best chances for a cure. The tincture may be given in doses of 1 or 2 drops three times a day. Or the hypophosphite of lime and soda may be given in doses of 1 or 2 grains each in syrup. This affection is often mistaken for amaurosis, but may be distinguished by the greenish color of the vitreous humor. Amaurosis has a convex, grayish or dirty opacity behind the pupil; and the pupil is immovable, but immovable also in glaucoma. The sight is better in dim light in amaurosis, but better in strong light in glaucoma.

AMAUROSIS.

Amaurosis may be primarily a dynamic affection of the optic nerve and the retina; but yet it may also result from inflammation and apoplexy. The signs of the disease are at first mobility of the pupil, which gradually enlarges, and finally becomes rigid, and does not keep its circular shape.

There is, deep in the fundus of the eye, a dirty, smoky, concave opacity generally, but not invariably so. The sight is better in the morning than at any other time. It is frequently mistaken for cataract, but may be distinguished by the smoky, dirty opacity deep in the fundus. Cataract has a grayish opacity immediately behind the pupil.

Treatment.—The treatment is not always as successful as might be desired, but there are some remedies that may be tried with a hope of success, and one of these is aurum muriaticum in small doses, say the 1-30 of a grain three times a day. If there are cerebral symptoms, and the disease follows scarlet fever or measles, then belladonna in small doses, say 5 drops four times a day will have a good effect. If it follow apoplexy, or if there is congestion of the head, gelsemium in 10 or 20 drop doses will have a good effect. If the pupils are contracted, the phosphide of zinc in 1-10 grain doses is the remedy.

TUMORES CISTICI—ENCYSTED TUMORS OF THE EYE-LIDS.

These are degenerated sebaceous glands which are situated in the cellular tissue of the lids. They consist of a sac or cyst, the contents of which are of various characters; sometimes hard, semi-fluid, like wax, then mixed with hairs. They are of various sizes, and are movable.

Treatment.—Thuja, applied locally, and given internally, may disperse them; if it does not, they may be punctured, and the contents let out; they then usually heal up, never to re-appear.

PTERYGIUM—A LITTLE WING.

This is a wing-shaped morbid growth upon the conjunctiva, starting with its broad base in the corner of the eye, it reaches with its apex the edge of the cornea, very seldom crossing the middle of the cornea. It is loosely connected with the conjunctiva. It is oftener in the inner corner than the other corner of the eye. These growths are of various colors and consistencies; some are very red, inflamed, and very vascular, while others are quite thin, and almost transparent; others are thick and of a yellowish hue, and not transparent.

Treatment.—They generally require the knife, but, at the commencement, a strong wash of zinc may remove them; some 5 or 6 grains to the ounce of water may be used.

STRABISMUS—SQUINTING.

This is either converging or diverging, upward or downward. It is frequently a sign of some cerebral affection, as hydrocephalus acutus, apoplexy, etc. It may originate from irritation of the intestinal canal by worms, or by catarrh.

Treatment.—Gelsemium in doses of 15 to 20 drops every two hours, alternated with 5 or 6 drops of belladonna, will likely give relief. If it follow verminous affections, then spigelia and santonine will give relief.

SPASMS OF THE EYE-BALL.

This is either tonic or clonic. If tonic, the eye is set, and drawn to that side where the muscles are spasmodically contracted, or it may stand motionless in the middle, but drawn back into the orbit. But if the spasms be clonic, then the bulbus is in a constant swinging motion, from side to side, so the eye is never still.

Treatment.—Gelsemium in doses of 25 drops every four hours, will generally give relief. Belladonna may be alternated with the gelsemium, in doses of 3 to 5 drops. The cause should be sought for and removed.

BLEPHARO-PLEGIA.—PARALYSIS OF THE LIDS.

This affection consists of paralysis of the levator palpebrarum, when the upper lids fall down, or the orbicularis, then it cannot be closed. This is the result of some affection of the brain, which must be remedied.

[xx.]

MEDICAL INHALATION—ITS USES AND ABUSES.

BY M. M. MILES, M. D.

In connection with the general practice of medicine, I have employed medical inhalation for diseases connected with the respiratory organs for more than thirty years; probably longer than any other physician now living in America. Yet, I am not the inventor of this method of applying remedies. As far

back as the days of Hippocrates, Aristotle, Galen and other medical men of eminence, fumigations of different remedies in the treatment of the diseases of the lungs were used. Notwithstanding the methods of applying these fumigations were rude, a good degree of success attended the practice.

Most of our profession, however, up to the present time, have given medical inhalation but very little attention; yet there has been a great improvement in this method of applying remedies within the past thirty years. A few first-class physicians, in various parts of the United States and in Europe have given this method special study, and are *using* it successfully.

We cannot reach the parenchyma of the lungs and the air-passages *directly* except by inhalation, and we bring the remedy in full contact with the diseased surfaces of the whole extent of the respiratory organs. Hence, it is a *rational* and *successful* method of treatment in all affections of the air-passages. Medicated vapors, when inhaled with the aid of a suitable instrument, soothe and subdue the inflammation of the mucous membrane, reduce large bronchial glands, stimulate the absorbents to remove the tubercular deposits, cleanse ulcerous cavities and cause them to take on a healing process. It must be seen by every intelligent physician that there is *great* advantage in a *direct* application of remedies to the organs of respiration over the circuitous route of the stomach and the circulation. In a large number of cases, the disease is purely local, and nothing but appropriate local treatment can succeed.

In many cases, however, the cause which has produced the affection of the respiratory organs is also affecting the system in general. In all such cases, one must resort to constitutional as well as local treatment. But can it be reasonable to apply *no* remedy *directly* to the local lesion. When we are called to treat a malady on the surface of the body, we apply our remedies directly to the parts affected. Why, then, when the air tubes or cells become diseased throughout their extent, should we not apply our remedies directly to the diseased parts by the inhalation of medicated vapors which will reach the whole diseased surface at once?

“Right in this vital point in the lungs, where the blood runs in a ceaseless current—where the whole of it goes *every two minutes* to renew its vitality by contact with atmospheric air—we have in thousands of cases, daily occurring, inflammation with roughening or softening of membrane, with its consequent harsh breathing; we have mucus tough or glairy, to impede and interrupt respiration; we have tubercles in the hard or soft state adding to the general embarrassment, and not only lessening the vitality of the blood, but disturbing all the sympathies of the system; and yet the practice has been to attack these central disturbers of life only through the circuitous path of the stomach, lacteals, etc.”

When this tough mucus, or tubercular matter, is being deposited upon the surface of the air-cells and of the bronchial tubes, we should use a proper medicated vapor, which, when it is thoroughly inhaled by the aid of a suitable instrument, will dissolve the matter and cause it immediately to be expectorated, and, at the same time, produce a soothing and healing influence upon the mucous membrane.

THE ABUSES OF MEDICAL INHALATION.

Within the past few years, there has appeared an “army of quacks,” who have been making medical inhalation a hobby. These men have made a batch of “inhalers,” most of which are perfectly worthless, and many of them absolutely injurious in their use. Each of these has a single compound with which he pretends to cure every one who may have any disease of the head, throat or lungs. What an absurd idea! No wonder that medical inhalation has been brought into disrepute in some quarters by these mountebanks. The wonder is that a much larger number have not lost their lives by their nefarious practice. Their object is to make money, and they care very little about the results, providing that they accomplish their end, viz., get the money.

Notwithstanding the abuses just mentioned, scientific medical inhalation is invaluable in the treatment of pulmonary diseases, when employed as auxiliary to other appropriate means.

Educated physicians, who have studied and practiced this method, have been divided in their opinions in relation to warm and cold inhalations. The fact is, *both* are valuable.

In my experience, however, a very large majority of patients have been more benefited by the warm inhalations, and have improved more rapidly under their influence than with the cold.

Among the remedies which I employ as inhalants are the following, viz.: Grindelia Robusta, Eucalyptus Globulus, Ipecacuanha, Tolutana, Conium, Iodinium, Asclepias, Veratrum Viride, Scilla, Lobelia, Sanguinaria, Penthorum Sedoides, Prunus Virginiana. These drugs I have prepared in the form of tinctures, and add from 3j to 3ij to filtered water, at a temperature of about 130°, ʒjss. The patient inhales fifteen to thirty minutes, according to circumstances, three or four times daily.

In order to make the right selection from these remedies for each individual case, we must be careful and make a correct diagnosis.

[XXI].

DISEASES OF THE EAR.

[Excerpts from Prof. I. J. M. Goss' Practice of Medicine, now Preparing.]

(Continued from Page 126, June No.)

INTERTRIGO AURICULÆ—SORENESS BEHIND THE EARS.

This affection of the ears mostly affects little children. It appears first as an erythema, and there soon commences an oozing of fetid matter, which hardens gradually into crusts. Sometimes the lobe becomes excoriated, and even parts of the adjacent scalp. A sudden suppression of this eruption by mere external applications has frequently been followed by affections of the brain and its membranes. It should never be suddenly suppressed by mere external applications.

Treatment.—Sulphur in small doses, alternated with rumex crispus and alnus rub. will correct the discrasia upon which this disease depends. If, however, there is deep ulceration and a very great tendency to retrograde metamorphosis, then I use the iodide potassium, 4 grs., three times daily, in any con-

venient alterative syrup 1st dec. trituration to 2 $\frac{3}{4}$ of water; dose, a teaspoonful three times a day. As a local application, an ointment of petro-leum may be used; or, carbolic acid, 10 grs., borax, 10 grs., aqua dest., 1 $\frac{3}{4}$, glycerine, 1 $\frac{3}{4}$ —apply three times a day with a mop of soft cotton; it should not be applied until the blood is purified with the remedies above named.

OTITIS INTERNA—INFLAMMATION OF THE MIDDLE EAR.

This commences, usually, at the membrana tympani, but spreads rapidly all over the tympanum, the Eustachian tubes and the cells of the mastoid process, then attacks the labyrinth, and sometimes even penetrates through the petrous portion of the temporal bone, and may finally affect the brain and its membranes. It is attended with violent pains in the parts affected. Upon careful examination with the speculum, the membrana tympani appears red, the mastoid process is hot, swollen and red. In small children, it may be known by their bringing their hands constantly to the affected ear, and screaming loudly, and sometimes throwing the head from side to side. They do not nurse readily as that act increases the pain, and they may be seen to suddenly let go the nipple. This affection may end in destruction of the membrana tympani unless it is checked.

Treatment.—In the beginning, aconite alternated with belladonna will frequently cut short the inflammatory process. If it pass into a subacute stage, pulsatilla in small doses, say 1 drop, alternated with 1 drop of rhus toxicodendron every two hours, will complete the cure. If there is any skin affection, sulphur should be given.

OTORRHOEA.

Otorrhoea is an excessive discharge from one or both ears, sometimes purulent, and frequently results from previous inflammation of the ear, or it may follow scarlet fever or measles. This disease often becomes chronic and is very troublesome, and it often indicates a scrofulous or strumous diathesis in the child.

Treatment.—If the discharge is profuse, ichorous and offensive, the ear should be syringed out and a weak solution of

permang. of pot. dropped in once daily, this will generally cure the disease. I usually give the 1st dec. trituration, say 1 to 2 grs., to water, 2 $\frac{3}{4}$; dose, a teaspoonful three times a day. If there is caries of the mastoid process, ossicula, and the discharge is fetid, the chloride of gold is the best remedy; it may be given in doses of 1-100 of a grain to small children. I use the 1st dec. trituration, 1 to 2 grs., to 4 $\frac{3}{4}$ of water, and give a teaspoonful three times a day, and find this enough to act well. If there is constant itching, burning and excoriation, rhus toxicodendron may be alternated with the gold or the iodide of arsenic, in doses of 1 to 2 drops. If the discharge is thin and very profuse, the ear may be injected with tincture of iodine, 1 $\frac{3}{4}$, iodide of potassa, 1 $\frac{1}{2}$ $\frac{3}{4}$, glycerine, 1 $\frac{3}{4}$, and water, 1 $\frac{3}{4}$; and every third night, packed with lycopodium, 20 grs., and alum, 2 $\frac{3}{4}$ —mix in fine powder and fill the ear.

In cases of old chronic otorrhœa, where there is an abundant, fetid discharge, a solution of salicylic acid and borax will aid the internal treatment; say, salicylic acid, 20 grs., borax, 20 grs., water, 4 $\frac{3}{4}$ —use with a syringe or with a small swab of cotton on a small stick. Where the discharge is thin and very profuse, the muriate of iron, 15 drops, glycerine and water $\frac{3}{4}$, $\frac{1}{2}$ $\frac{3}{4}$ —apply with a small, soft cotton swab. If there is ulceration of the membrana tympani, touching the ulcers with nitric acid is often followed by success. This may be done by dipping a small, soft pine stick, the proper size, in nitric acid and applying to the ulcer. In some cases of chronic otorrhœa, eczema of the external auditory meatus takes place. In these cases, citrine ointment, 1 part, with olive oil, 2 parts, applied twice a day, will be found very positive in effect. In cases where the discharge has finally ceased, there is often a want of secretion by the cruminous glands, and the ear is dry and the hearing imperfect. Here, the patient is inclined to constantly pick the ears, as they itch. In these cases, Pond's Extract of Hamamelis, 1 part, and equal parts of glycerine and water, may be applied, and if this fails, the glycerole of tar may be tried. In some cases of dryness of the ear, glycerine and oil of sassafras have done well with me—say glycerine, 1 $\frac{3}{4}$, oil of sas., 10 gtt.

DESTRUCTION OF THE MEMBRANA TYMPANI.

In cases of ulceration of the ear, it may reach the tympani, and either destroy it or thicken it. By applying an ear-speculum, while the patient closes the nose and swallows, the tympanum will be seen, if intact, or absent, if destroyed. And the ossicula auditus may be also discharged where the tympani has been destroyed by ulceration, which can also be discovered by the use of the ear-speculum.

Treatment.—The chloride of gold is one of the best remedies, and it may be alternated with silicia, both in triturations, in small doses, say 1st dec. in doses of 1-5 to 1-8 grain (according to the age of the patient), three times a day.

STRICTURE OF THE EUSTACHIAN TUBE.

This can be ascertained by driving air into the Eustachian tube with the rubber pump made for that purpose, and sold by druggists.

Treatment.—A long course of iodine is indicated, and it may be alternated with medium doses of gelsemium. Or if there is any inflammation, pulsatilla will do good service; it may be given in doses of 1 to 5 drops three times a day, according to the age of the patient. If the child should show signs of struma, then the tincture of sulphur should be given in doses of 2 or 3 drops three times a day, alternated with alnus rubra.

IMPAIRED HEARING—DEAFNESS.

Deafness or impairment of hearing may arise from, 1st, obstruction of the meatus auditorius, by polypi, earwax, inflammation, collection of pus, or from any foreign bodies in the meatus; 2d, inflammation, thickening, degeneration and destruction of the membrana tympani by ulceration; 3d, inflammation of the middle ear and the loss of the ossicula auditus, collection of pus, etc.; 4th, inflammation and stricture of the Eustachian tube, affections of the labyrinth and auditory nerves. It is obvious that cases occurring from destruction of certain vital parts of the ear, as the auditory nerve, are incurable; but those from inflammation or obstruction are generally curable, if properly treated.

Treatment.—In cases where an accumulation of hard ear-wax has obstructed the ear, its removal with glycerine, then the administration of conium in small doses, will often cure the deafness. If the wax is dry and hard, and of a brown-red color, muriatic acid in 5-drop doses, three times a day, will likely be followed by good results. If it follows scarlet fever, nitric acid 3 drops three times a day, alternated with iodine, and the 1st dec. trit. of lycopodium, put in the ear at night, will be apt to relieve the deafness. If it is accompanied with pain, chamomilla will give relief; it may be given in doses of 1 to 2 drops three times per day.

[XXII.]

NATURAL THERAPEUTICS.

BY S. H. POTTER, M. D.

In the treatment of human maladies, the first and most important subjects to investigate are the functions which nature performs in the curative process. The first is rest—physiological and mechanical rest, as *essential* to be known and kept in mind by the practical physician and surgeon. Growth is the antitype of repair, indicating the physiological capabilities of existing structures to repair themselves. Rest and growth bear the relation of cause and effect. Accurate observation of the animal and vegetable world proves their perpetual co-existence. Growth proceeds *pari passu* with physiological rest. Calm repose and peaceful sleep are nature's great restorers.

The marked tendency of modern practice is to rely more upon the resources of nature and to dispense less drugs. The latter are very useful, of course, when wisely employed, but when given to excess or in depressing doses they are always pernicious. The former are the principal means of permanent relief and indispensable to health.

Rest is one of the chief natural therapeutic agents, often the only one available or required. Warned through weariness of fatigue, exhaustion or pain, all other living beings, and uncivilized men seek rest and are restored from their few mala-

dies without other aid. The quiet child who most sleeps most thrives; the restless, wakeful child shows little proof of active nutrition. The healthy infant passes a greater portion of time in sleep and rest. Growth—the normal renewal of some parts and the fresh development of others require rest and sleep. Many well known grave maladies are curable only through absolute rest; in treating all diseases this agent is the most important one. Rest is the fosterer of repair; is necessary for the healthy action of every organ; and the means instituted by nature to secure quiescence and recuperation of the various viscera of the body. True, relaxation and due exercise of mind and body, in alternation, promote and perpetuate health. When the forces are expended in useful pursuits, rest is the one therapeutic agent to restore energy for resuming action in vigorous health.

In all periods of life, from infancy to decadence, intellectual vigor, moral courage and physical endurance render regular rest and refreshing sleep indispensable. Conspicuous among natural therapeutics are pure air and water, wholesome, nourishing food, proper protection and favorable surroundings. Without these, other therapeutic means are useless. This should be kept in mind. In early practice the average physician seeks new and vaunted remedies, and puts those in requisition in abundance. Later experience and observation dispel this delusion. Eminent and experienced physicians usually settle upon comparatively few therapeutic agents, to them well known to be efficient in their action, to fulfill the various indications in treating disease. The cardinal rule is: Never severely impress the system, nor employ remedies which can injure it. Support the vital forces through natural therapeutics, rendering whatever auxiliary aid may be afforded by the use of drugs, employing few and simple remedies—only those whose nature and known action give good results. Investigation for new remedies and new uses of old ones are commendable and should be encouraged.

SELECTED.

Diseases of the Organs of Respiration.

THE TREATMENT OF EARLY PHTHISIS.

By Dr. J. MILNER FOTHERGILL, Assistant Physician to the Victoria Park Hospital for Diseases of the Chest.

The leading characteristics of early phthisis are cough, emaciation, loss of flesh, night sweats and pyrexia, with more or less hæmoptysis; each symptom indicating an appropriate line of treatment. For here it is essential to treat symptoms while doing our best to influence favorably the pathological process on which they casually depend. If asked the question, "What do you think the most important matter to attend to in the treatment of early phthisis?" my answer would be, "To arrest the night sweats." "The next most important?" "To keep the stomach and intestines in good order and attend to the assimilative processes." If these are not attended to, all treatment is futile, or nearly so. If the sweats are not checked the blood-salts drain out as fast as supplied; if the digestive powers are not cared for, the food taken is not assimilated, and so the patient is no nearer more perfect nutrition and effective tissue repair.

To arrest night sweats we must have recourse to some anhidrotic, as oxide of zinc, sulphate of copper, or one of the solanaceæ, as hyoscyamus, and still more, belladonna. The first two act as astringents, generally affecting any part where there is an abnormally excessive flux; how, we do not know. Belladonna acts directly upon the secreting nerves of the sudoriparous glands, whether applied locally or administered by the mouth. Probably hyoscyamus acts in allied manner. Taken altogether, there is no anhidrotic to be compared with belladonna, though in the few cases where it fails the other agents may be tried. But in order to get out the good effects of belladonna, it is necessary to give it in sufficient dose. The ordinary dose of sulphate of atropia—for it is much better to use a solution of atropia of known strength than to give the tincture of belladonna, which may, and probably usually does, vary in strength—is in many cases quite insufficient. The

variations of toleration of belladonna in individuals is as pronounced as is the case with Epsom salts; what is sufficient of the latter for one, exercises no influence over another person, while the dose some require to produce even a gentle action of the bowels would produce well-marked, nay, serious, diarrhoea in others. I use atropia in doses varying from the seventy-fifth (75th) to the fiftieth (50th), and up to the twenty-fifth (25th) of a grain. A considerable proportion of patients are unaffected until the last dose is reached, and even then do not complain of much dryness of throat, or indistinctness of vision (effect upon the pupil as a guide to the administration of belladonna is utterly worthless). With many patients, the seventy-fifth of a grain of atropia will arrest the night sweats, and in a certain number will affect the throat and eye-sight; while others require the fiftieth to influence the night sweats; and again a small proportion are uninfluenced till the twenty-fifth is reached. Thus we see the toleration of belladonna varies very much with different individuals. An impression exists in my mind that these large doses of belladonna are more frequently required in the case of Jews than of other patients. The practitioner then must not go away with the impression that belladonna had failed in any case until he has pushed the dose to decided dryness of the throat and distinct impairment of vision; flinging aside any effect upon the pupil as a fallacious test not to be trusted; for in my experience the pupil is rarely much affected, and yet in other cases a marked effect is occasionally produced on the pupil by placing a small belladonna plaster over the heart. To some other effects of belladonna reference will be made shortly.

The profuse night sweats of phthisis, and, at times, of other maladies, are very exhausting. Sweat is a secretion which contains chlorides, phosphates, and sulphates of the alkalies, as well as urea, uric acid, traces of iron, and of fat or of fatty acid. Consequently, when the sweat is profuse in a person who is debilitated, it drains the body of its salts, and, in doing so, cripples the assimilative powers. Usually the first consequence of arresting the night sweats of the phthisical is the return of the appetite—food is both relished and digested. So

long as this drain goes on it is practically useless to give milk, phosphites, meat juice, etc., etc.; it is like pouring them through a sieve. The importance of checking the night sweats cannot be over-rated.

A few words as to the associations of night sweats may not be out of place or without instructive value. It is well known that, ordinarily, the night sweat comes on toward morning—in the deep morning sleep. Often, if the patient keeps awake, the sweats do not come on. On the other hand, where deep sleep is produced by an opiate given to relieve the cough, profuse night sweats are commonly the consequence. These associations of night sweats are significant. They largely depend upon the relations which exist betwixt the pulmonary and the cutaneous respiration—relations much more pronounced in human beings than is commonly supposed. Their relations in some of the lower animals are well known. When the respiratory center is depressed in deep sleep, and the pulmonary respiration is lowered very distinctly, the sudoriparous glands are thrown into action. When the blood is deficiently aerated, and there is an excess of carbonic acid in it, the sensory nerves of the sudoriparous glands are thrown into action and sweating follows. (Ott & Field, *Journal of Physiology*, 1878.) When, then, the respiratory center is exhausted by the efforts required to aerate the blood, where the amount of useful lung is limited, and the respiration drops low in deep sleep, sweating, or cutaneous respiration, is the result. Belladonna is a direct stimulant to the respiratory center when failing, either from disease or from a toxic agent, and so is useful in two ways. It arrests the action of the sudoriparous glands on the one hand, and by stimulating the respiratory center on the other, does away with the necessity for hidrosis. Consequently, it is well to give atropia with morphia whenever it becomes necessary to give the latter drug to relieve the night cough of phthisis. The antagonistic actions of morphia and belladonna are now sufficiently accurately ascertained to enable us to combine them in an intelligent and practically useful manner. Belladonna does not act so powerfully upon the hemispheres as to interfere much with the action of morphia upon them; while its sedative

or paralyzant action upon the ends of the vagi (the sensory nerves) in the lungs renders it a useful adjunct to the morphia in arresting cough—a reflex action exerted by the presence of an irritant in the lungs in the form of the neoplastic growth. Not only that, but morphia lowers the activity of the respiratory centers; indeed, kills by arresting the respiration, and after it the circulation, while belladonna is a direct stimulant to both. Consequently, even if there be no night sweats, when it becomes necessary to exhibit opium or morphia for the night cough of the phthisical, it is well to combine with it a dose of atrophine to antagonize the effects upon these rhythmically discharging centers of the respiration and circulation—effects which are unsought and undesirable, yet unavoidable. (For the evidence for these statements the writer must refer the reader to his “Essay on the Antagonism of Therapeutic Agents,” and what it teaches, 1878.) If there are already night sweats, the atropia will prevent the opiate making them worse, and often will be found effectual in checking them while not interfering with the desired effects of the opiate. The pill in common use by the writer at Victoria Park Hospital consists of one-fourth of a grain of morphia (hydrochlorate), a fortieth of a grain of atropia, with a grain of capsicum in powder, and three grains of pil. aloë et myrrh. At the West London Hospital, of one-third of a grain of morphia with one-thirtieth of a grain of sulphate of atropia. This pill is well borne in almost all cases. The morphia checks the cough and procures sleep, while the aloetic vehicle prevents the bowels being locked up, and the appetite diminished by the action of the opium upon the local ganglia of the intestinal tube, and on the sensory nerves of the stomach. By such a combination, indeed, we can secure the desired action of the opiate, and get rid of the effects which are objectionable and detrimental to the patient. So far I have never once seen any of the toxic effects of atropia, as dryness of throat and indistinctness of vision, follow the use of this combination; the morphia apparently combating such manifestations. This use of opium and belladonna together will be found most serviceable in practice.

If belladonna pushed freely does not arrest the night sweats—an occurrence very rarely encountered—then oxide of zinc with hyoscyamus or sulphate of copper with opium, may be tried. Dover's powder, conium, quinine, the mineral acids, or tannin, or gallic acid, or ergot may be tried. Then comes the question of applications to the skin. Vinegar or a weak solution of a mineral acid may be washed over the surface with advantage. Dr. Lewis Sayre informs me that an irregular practitioner in New York many years ago gained a great reputation in the treatment of phthisis by sponging the patient with hot vinegar containing a considerable quantity of powdered capsicum. He was very effective in arresting the night perspirations; and, as usual, when these exhausting sweats are checked the appetite returns and food is relished and digested. However attained—if attainable at all—the first thing to be done is to check the night sweats; and the hot vinegar with cayenne pepper is useful in very obstinate cases.

Attention to the stomach and bowels, or, as our predecessors used to say, *primæ viæ*, is essential and scarcely of secondary importance to the treatment of night sweats. It may be heterodox to say this in the present worship of physical signs, but it may be said truthfully enough, that with phthisical patients it is more important to study the tongue than to go over the chest with the stethoscope. The latter may doubtless tell the extent of the disease, and so demonstrate the physician's skill in diagnosis, but the other affects the patient, and attention to it may save a life, and neglect of it lose one. When the tongue is covered with a thick fur, it is useless, or nearly so; to give iron and cod-liver oil, for the tongue is the indicator of the state of the intestinal canal, and absorption through the thick layer of dead epithelium cells is well-nigh impossible. It is well here to give a compound calomel and colocynth pill every second night, and to prescribe a mixture of nitro-hydrochloric acid, or phosphoric acid with infusion of cinchona, three times a day till the tongue cleans; or, at other times, the tongue is raw, bare, and denuded of epithelium. Here it is of cardinal importance to put the patient on a mixture of bismuth with an alkali, and a milk dietary. Often milk and

seltzer water will agree where milk alone is too heavy and too constipating. As long as the tongue is raw, it is necessary to fight the case on this line, attending to the night sweats of course, but not attempting to give hæmatics or oil.

Then comes the matter of attention to all drains, such as diarrhoea. The phthisical are readily depressed by diarrhoea, and it should always be attended to energetically. Of course, in the later stages, where the intestines are the seat of tuberculous ulceration, the diarrhoea is very intractable, requiring the free exhibition of bismuth and opium, and even of ipecacuanha, which seems to be of service in such cases. But in the early stages it will yield to a pill of sulphate of copper (half a grain) and extract of opium (one grain). Rice-water as a beverage is indicated where there is a tendency to diarrhoea, and beef-tea should be avoided. Beef-tea often sets up or keeps up a loose action of the bowels. Still more important is it to attend to all drains when the patient is a woman. The neglect of this matter is simply appalling. I have known a woman kept in our most famous hospital for six weeks for a trifling piece of mischief at the tip of one lung, and an attack of hæmoptysis of no great severity, while she was profusely unwell seven out of fourteen days; but it had never struck the physician to inquire into that form of hemorrhage. The woman was drained by menorrhagia and leucorrhœa, but these had never even been asked after. Another patient was some months in the Brompton Hospital for pleural thickening of the left apex, where a similar state of matters existed with ovarian congestion. It is needless to say that in neither case did any improvement result from the stay in hospital. Three years ago, when going over the National Hospital for consumption at Ventnor, I asked as to how far any systematic inquiry was made into the drains of female patients, and found that no such inquiry was then practiced. In ordinary hospitals no arrangements are made, or place provided where women may retire for the purpose of practicing vaginal injections or the use of the bidet; to my mind a very reprehensible omission. In many menorrhagic women it is more successful practice to limit the loss of blood at the catamenial period than

it is to build up the blood during the intermenstrual interval. As to leucorrhœa, it is a dead loss to the system from every point of view, especially mischievous in the phthisical.

As to diet. It must be nutritious, and easy assimilable. It should consist of meat-juice in any form, milk and farinaceous foods, and especially the different foods prepared for infants, which are mainly starch partially digested. If solid food can be taken well, very good, and a certain amount may be taken daily. Londoners seem to think that mutton is the food for all invalids, from the phthisical to the dyspeptic. Where there is a tendency to diarrhœa it is well to avoid beef-tea, and to resort to a milk dietary. Where the digestive powers are low, meat-juice or raw meat pounded may be digested where starchy foods are not assimilated.

But my own opinion is that farinaceous foods are not so objectionable as some would make out, if proper care be taken to see that they are taken as they should be. Thus beef-tea, which alone is scarcely a food, becomes nutritious if biscuit-powder, fine oatmeal, or baked flour under any name, be added to it. This is better than thickening with isinglass or gelatine. Then if there be diarrhœa, it is well to make rice-water and use it to dilute the preserved milk, instead of plain hot water. Attention to these trifles may constitute the turning-point of a case. Then milk puddings, stewed fruit and cream, especially where there is any tendency to constipation—or those cakes of oatmeal and treacle sold by Scotch bakers and confectioners, which are a very pleasant laxative food, may be eaten with advantage. It is well that the patient should sleep after the noontide meal; this aids digestion and cuts the weary day in two—no slight matter, especially when the days are long. Then, when the digestive powers are feeble, and the patient cannot fast long, it is well to have a glass of milk through the night, or a glass of that excellent old-fashioned remedy, rum and milk, early in the morning; this breaks the fast, and often procures the patient some refreshing sleep ere getting-up times comes. With many, the glass of rum and milk enables them to relish the breakfast when it arrives, where otherwise the long fast would do away with all appetite.

The breakfast should consist of coffee or cocoa, with some good milk, an egg, or a little bacon; and the bread should be cut thin, and the butter rubbed well in. It is well to finish the breakfast with fruit, an omission in English practice that should not exist. A glass of milk or a biscuit betwixt breakfast and lunch or early dinner is indicated in some cases, where the patient cannot go long without food; but the too common practice of having a glass of wine at 11 o'clock has no vindication in most cases. Alcohol may be taken with food to aid the digestion, and a glass of sound wine or good malt liquor at lunch and at supper is often of service; but the constant sipping of alcohol is bad, and the port-wine treatment of phthisis is unjustifiable where it is not a hollow mockery, and the wine a vile adulteration. A glass of really good port wine at meals suits some invalids better than any other sort of alcohol. Alcohol should be taken as an adjunct to other food—not as a substitute for it. Of course, in the final stages, alcohol is sometimes the only food that the patient can take; but it is a well-known fact they do not live long on it.

Such are the lines to be pursued in the treatment of early phthisis. Some intercurrent matters and side issues may now be briefly considered. The first is cough. Where a patient is one of several in a hospital ward it may be necessary for the sake of the others to give the patient a quiet night, as well as desirable for him or herself. But opiates have drawbacks, and should be combined with other agents, as stated in the commencement of this article. The question of the use of an opiate linctus, "to be taken when the cough is troublesome," is one on which opinions may differ. My own opinion is dead against it; I have seen the most disastrous consequences follow—loss of appetite, constipation, further loss of flesh, etc. To my patients the advice given is, that it is better to put up with cough; that the "something for the cough" will do more harm than good, and that they are better without it. Some take the advice; others transfer their professional confidence to some physician who holds a different opinion about "cough medicines;" anyhow, I do not see much of the slow poisoning (often not so very slow) of phthisical patients by opiate linctus

now, having seen quite enough of it. Then there are those abominations called "cough lozenges," which are just as bad as the linctus. I do not dogmatically assert that these things never do good, but the harm done to most cases far counterbalances the good done to the few. If a medical man is called in to see a perfect stranger suffering from a racking cough, he is probably justified in prescribing a sedative cough mixture at first to give relief, and so gain the patient's confidence; but the systematic use of such medicine is too frequently immoral and unjustifiable. As to the use of "cough lozenges," Dr. Mitchell Bruce's view is a sound one; he gives the morphia and ipecacuan lozenge, finding from experience that the ipecacuan generally nauseates the patient before enough of morphia has been taken to do much harm. Where the cough is very troublesome bromide of potassium may be given as affecting reflex action favorably with a minimum of bad after-effects. The most pleasant means of relieving cough, that is useless and harassing, is hydrobromic acid, with spirits of chloroform three or four times a day; it is effective as well as palatable. Chloral is not a drug to be advocated in cough.—*Practitioner*.

The Cure of Hemorrhoids by the Hypodermic Syringe.

BY EDMUND ANDREWS, A. M., M. D.

In a former number of this journal, I published the secret method of certain itinerant "pile doctors," and asked for information from all physicians who had any knowledge of the practical results of the treatment. This request, supplemented by other inquiries, has brought me responses from about three hundred physicians, and given me more or less knowledge of the results of over three thousand three hundred and three cases treated by the new method. From the material thus collected, I am able to present the following history:

In the year 1871, there lived in the village of Clinton, Ill., a physician named Mitchell. His practice being small, he employed his superabundant leisure in planning a new treatment for hemorrhoids. He was a good thinker, and soon conceived the idea of charging a hypodermic syringe with equal parts of

carbolic acid and olive oil, and injecting the contents into the hemorrhoidal tumors. He also devised another and totally different plan, which was to take two large needles with triangular points, like those used by saddlers, and then to pick the piles to pieces, little by little, with the needles. Mitchell himself is said to prefer the needle operation, and several others have adopted it from him; but the plan of injections has proved by far the most popular with others, and has recruited, in a quiet way, a surprising number of operators. The secret was sold from man to man, and the price and the enthusiasm rose simultaneously; "State and county rights" to practice it were vended at high rates, reaching, in one instance, the sum of \$3,000. Regular physicians abandoned their practice, and even mortgaged their property for money with which to buy the secret, and set themselves up as itinerants, while ignorant laymen joined in the rush until they filled the whole West with their clamor, and at last whitened the sands of the Pacific shore with their hand-bills.

The chief managers of the business settle in the larger towns in the winter, where they advertise and practice; but as the spring advances, the time when the wild geese begin to fly, they feel the migratory instinct, and go from place to place, selling the secret to all who will buy it, and operating, meanwhile, on the people of the farms and villages. In this way, they have treated more than ten thousand patients in the States west of the Alleghany Mountains. A secret so extensively sold always gets out. Three years ago, I discovered and published it, thus putting a check on the business of selling, and induced large numbers of the regular profession to try the plan among their patients. These physicians have furnished me my best information; but I also opened communication with the principal itinerants themselves, and induced several of them to come out frankly and tell what they knew, and, by checking one statement against another, was able to sift out pretty well the few attempts at deception.

Mitchell's original plans have excited widely-extended thought and experimentation among his followers, so that his two methods have branched out into numerous varieties. The

original injection seems to have consisted of equal parts of crystallized carbolic acid and olive oil. The operator exposes the piles to view and smears the anus with an ointment to prevent smarting, in case the fluid should chance to drop. He then takes a sharp-pointed hypodermic syringe, charged with the carbolized liquid, and slowly throws a few drops into one of the piles. The pipe is left in the puncture a few moments to prevent the fluid from running out and to allow it to become fixed in the tissue. The pile turns white, and, in the most successful cases, withers away without pain, suppuration or sloughing. Only one pile is treated at a time, and about a week is allowed between sessions until all are cured. The itinerants often advertise their methods as "painless," but, as a matter of fact, only about one patient in four gets anything like exemption from pain. Most of them suffer a sharp temporary smarting, and a few have a terrible and prolonged agony. The majority are cured, however, without interrupting their business.

The original plan has sprouted into numerous varieties. Instead of olive oil as the excipient, many use glycerine. Then, every operator has his favorite degree of strength. Several claim that the stronger the fluid the better it is, and actually inject crystals of carbolic acid melted by heat, while others use mixtures varying in strength all the way down the scale until we find Dr. Weir, of New York, experimenting with one part of acid to twenty or thirty parts of the solvent. The dose injected varies in like manner. Some advocate great caution, and only put in from one to three drops, while others crowd the pile with a syringeful, and seek to make it suppurate or slough. I find two men using creasote instead of carbolic acid, and several add anodynes, such as morphine, chloral or iodoform. Ergotine is also a favorite injection, and a great number of mixed formulæ have been imparted to me, some of which contain five or six ingredients. Mr. Colles, of Dublin, injects muriated tincture of iron. Dr. Hill, of Bloomington, Ill., and Dr. Drake, of Hastings, Mich., use the iron persulphate. Others have tried tannin, chromic acid, tincture of iodine, etc. One itinerant, who writes in a straightforward

and manly tone, says that he has experimented with almost every coagulating agent in the vegetable and mineral kingdoms. His preference is for the strongest carbohc acid, and he adds : "The difficulty with all remedies, except carbohc acid, is the suppuration being limited to a small portion of the tumor, or else, like the preparations of iron, causing it to swell and become very painful. Carbohc acid is, so to speak, used up in cooking the blood throughout the entire tumor. The appearance of the pile in from five to twenty minutes shows such to be the fact. Suppuration takes place hree or four days, with sloughing. No danger of hemorrhage."

The results of these various methods of treatment may be summed up as follows : In the first place, the needle operation has never become a favorite. I can learn of only five persons who employ it. The following case was probably treated in that way. The patient, a plethoric man, forty-five years of age, went to a quack in Chicago, and, as a result, the varicose hemorrhoidal vein was widely opened. Blood gushed out freely, but, after some time, was arrested in a manner not clearly understood by him. He then returned home in great agony and called for his family physician, by whom I was called in counsel. Removing cloths and compresses, a large opening was found in the vein, plugged with a vial cork, the quack, we presumed, had torn open the thin walls of a dilated vein and, being driven to his wit's end by the gush of blood, finally concluded to cork up his patient like a demi-john.

My informants agree that the injection method seldom fails to cure the disease, but report some serious disasters. The writers know of about 3,304 cases treated in their vicinity by these methods, and, though they cannot always give exact numbers and details, yet the circumstances are such that a case of rapid death from the treatment could not be concealed, though minor troubles, such as pain, sloughing, etc., might frequently escape their notice. It is probable, therefore, that the list of deaths is pretty complete, while the figures giving the minor accidents are too small :

LIST OF ACCIDENTS.

Deaths.....	9
Embolism of the liver (suspected).....	8
Very dangerous hemorrhage.....	5
Less dangerous hemorrhage	5
Carbolic acid poisoning (recovered).....	1
Sloughing (generally, but not always confined to the piles.....	23
Abscess (of the liver).....	1
Severe inflammation	10
Violent pain.....	83
Stricture of the rectum.....	2
Permanent impotence.....	1
Long sickness (two weeks to six months).....	6
Relapsed.....	7
Failed of cure of piles.....	11
Sundry other accidents.....	12

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Cases of sloughing and suppuration of the piles are innumerable. Some itinerants use strong injections with the express purpose of producing these results, deeming that the plan of causing them to atrophy without suppuration lacks certainty and permanence.

The list shows that while the deaths are so few that the risk is no greater than in other methods of treatment, yet, the minor accidents are very numerous. The imperfection of the reports renders a thorough study of the accidents impossible, but the following information has been gleaned: One of the deaths was caused by inflammation, followed by immense abscesses, erysipelas and pyæmia. The patient died on the fifth day. Another death apparently resulted from embolism of the liver. That viscus nearly ceased its function; the stools were light-colored and scanty, the skin yellow, and all the lymphatic glands of the groin, axillæ and neck became enlarged. A full dose of calomel always brought temporary improvement, but no permanent benefit. The patient lingered along, and died unrelieved, about one hundred days after the

operation. The next fatal case was that of a man 84 years of age. The person who injected the pile said it was "very large, and very deeply seated." It was suspected that he mistook the enlarged prostate for a hemorrhoid. Be that as it may, the patient was attacked with violent pain and retention of urine, and though relieved by the catheter, died the third day. There is no proof, however, that the prostate was injected, nor that it would be fatal if it were.

The fourth death was also attributed to injecting the prostate, but no symptoms are given.

The five remaining deaths are so vaguely reported that I am unable to give any particulars about them. It is possible that three of the reports refer to the same patient, and ought to be counted as one, in which case the whole number of deaths is only seven. This number of fatal results in 3,800 cases, treated often in the most reckless and ignorant manner, is certainly not large, and tends to show that the injection method is as safe as any other, so far as life is concerned:

The same relative immunity appears respecting hemorrhage. Five dangerous cases of it are reported, but in most, if not all, of them, it occurred from the foolhardy practice of allowing the patient to take long rides and walks when he should have been in bed; but with all this imprudence, the hemorrhage cases are fewer than occur after the use of the clamp and the ligature. Allingham reports more instances of hemorrhage after his favorite operation, the ligature, than I can find among these cases of injection.

The chief objection of the profession to this operation has been the fear of embolism. The two lower pairs of hemorrhoidal veins send their blood by the route of the internal iliacs to the heart, but they are small, while the upper pair is much larger, and carries the great mass of the blood of the hemorrhoidal plexus to the liver; hence we should expect that embolism, if it occurred at all, would be of the latter organ. The facts agree with the indications of the anatomy, for not a single case is reported of a sudden death, such as proceed from clots swept to the heart and lungs, but there are eight instances of suspected embolism of the liver. Only one of them died,

and there was no post-mortem examination, so that positive proof is wanting.

The first is the fatal case of liver trouble already described.

The second was marked with abscess of the liver, but the patient recovered.

In the third case the patient was attacked, one hour after injection, with severe pain in the liver. After some time, the physician succeeded in arresting the pain, and had no further trouble, but he feared to repeat the injection.

In the remaining cases it is simply reported to me that the patients, after operation, were attacked with disease of the liver, but no particulars are given, except the statement that they did not die. It is probable that in some of them the disease of liver pre-existed, and was the cause of the piles, and not the consequence of the operation. On the whole, there does not appear to be any decided danger of embolism if the case is carefully handled. I may mention that Dr. Whitmire, of Metamora, Ill., practices tamponing the upper part of the rectum for twenty-four hours, to prevent any emboli from moving in that direction.

Sloughing and suppuration of the piles generally follow large and concentrated injections, but not the small and dilute ones. A few cases only of extensive abscesses have occurred.

The most frequent of all accidents is the occurrence of severe pain. The verge of the anus is extremely sensitive, and injections put in near that circle are liable to produce fearful distress; but above the verge the sensitiveness rapidly diminishes, so that much less suffering is entailed by the injection of internal piles. In about one-fourth of the patients, the pain is very slight. Dr. Weirs, of New York, injected two series of patients; one with strong the other with weak carbolized solutions, using in the latter only one part of carbolic acid to ten, twenty, or thirty of the excipient. He found that the pain and abscesses followed the use of strong injections, but were escaped when weaker ones were used. The remaining accidents in the list are not peculiar to this operation, nor greater in number than habitually occur in other methods. The operation was a new one, and its conditions of safety were

unknown. When we consider that many of the operators were ignorant blockheads, with no qualifications for the business, except a bottle of carbolic acid and an hypodermic syringe, and with no idea of efficiency but to force into the hemorrhoidal plexus of veins all the caustic liquid it could be made to contain, we shall not be surprised that a few deaths and some minor accidents have occurred. Had the method not been of itself an unusually safe one, these men would certainly have slaughtered their scores of victims, for the difference is world-wide between their ignorant injecting and cautious scientific surgery.

If the following rules are observed, I believe that the method of hypodermic injection will be less painful than any other, and equally safe:

1. Inject only internal piles.
2. Use diluted forms of the remedy at first, and stronger ones only when these fail.
3. Treat only one pile at a time, allowing from four to ten days between the operations.
4. Inject only one to six drops, smearing the membranes with cosmoline to guard against dripping. Inject very slowly and keep the pipe in place a few moments, that the fluid may become fixed in the tissues.
5. Confine the patient to bed the first day, and also subsequently, if any severe symptoms appear. Prohibit any but moderate exercise during the treatment.

Under all treatment, as well as without treatment, piles are subject to possible hemorrhage.

When the bleeding vessel cannot be found and promptly controlled, Allingham gives the following method of using the tampon: He takes a good-sized sponge and fastens a strong double string through its center. (He prefers a bell-shaped sponge, inserted with the open end downward). Having pushed the sponge up the rectum some inches beyond the bleeding point, he fills the parts below it with cotton dusted with powdered alum or persulphate of iron, and ties a stick across the finished tampon with a double string. By turning the stick around like the handle of a gimlet, he twists and

tightens the string, forcing the tampon firmly up against the sponge, and causing it to spread laterally, and to compress the bleeding vessels. He advises to put in a large catheter with the tampon to give exit to the flatus. By the help of opiates the tampon is often tolerated several days.

My final conclusion is that the wild itinerants of the prairies have really made a valuable contribution to scientific knowledge, and that the cautious injection of hemorrhoids with carbolyzed solutions, will remain as one of the permanent operations of surgery.

The number of physicians who have contributed to this investigation, is so large that it is impossible to give separate credit to each one, but I return them collectively my thanks, and especially to Dr. J. Burry, of Raub, Ind., who was kind enough to write to over thirty medical men in my behalf.

The literature of this subject is very scanty, and is mostly covered by the following references:

The Chicago *Medical Journal and Examiner*, October, 1876. Article by Prof. E. Andrews.

The New York *Medical Record*, Vol. XI, p. 112.

The Maryland *Medical Journal*, June, 1878.

The London *Lancet*, p. 228, 1877. Article by H. A. Reeves.

The Philadelphia *Medical and Surgical Reporter*, July 6, 1878.

The Cincinnati *Eclectic Medical Journal*. Three articles, in 1874, 1877, and December, 1878.

The Toledo *Medical and Surgical Journal*, November, 1877. Article by Prof. J. H. Pooley.

The Louisville *Medical Journal*, August, 1878. Article by J. M. Matthews, M. D.

The New York *Medical Journal*, March, 1879. Report of R. F. Weirs, M. D., to the Therapeutical Society.

The *American Bi-Weekly*, April 27, 1878. Paper by Dr. J. M. Matthews before the Kentucky State Medical Society. There is also, in the same journal, February 16, 1878, a paper read before the same society by A. B. Cook, A. M., M. D.

The St. Louis *Clinical Record*, April, 1878. Article by S. B. Hauts, M. D.

Journal de Medicine et de Chirurgie, Paris, tome L, March, 1879,

Ashurst *Surgery*, third edition, p. 831.

"Hemorrhoids or Piles," etc., a pamphlet by E. J. Fraser, M. D., San Francisco, Cal. No date.—*Detroit Lancet*.

Prevention of the Spread of Contagious Diseases.

The Philadelphia Board of Health has ordered that hereafter, when death has resulted from a contagious disease, the cause shall be mentioned in published death notice. That the public should avoid unnecessary attendance upon the funerals of those dead from contagious diseases. That among the diseases especially calling for this caution are scarlet fever, measles, whooping-cough, diphtheria, and small-pox or varioloid; and that, whenever possible, air-tight burial cases be used, and if such cannot be obtained the funeral be strictly private.—*The Cincinnati Lancet and Clinic*.

EDITORIALS.

MEDICAL SOCIETIES.

THE NATIONAL.—The annual meeting of this society will convene June 18, at 10 o'clock A. M., in the City Hall, Cleveland, Ohio.

The Hon. J. W. Fitch, Lieutenant Governor of Ohio, will deliver the address of welcome. Arrangements will be made, if practicable, with railway companies for reduction of fares. The headquarters of delegates and members will be at the American House, which can be easily reached from depot by either street cars or carriages.

Copies of the call have been mailed to every member of the association, by which we see that the session is to be decidedly

a *busy one*. President King has mapped out work for everybody; and there is no room to doubt that the whole time will be fully and profitably employed. A large number of committees to make reports upon special scientific subjects with nearly a hundred members named to prepare papers on all the departments of medicine and surgery; and a general invitation to *all* to come prepared with their best thoughts to promote the welfare of the profession. Every physician requires a little "rest and relaxation" at this season of the year preparatory for the more arduous duties of his calling during the summer months.

All need the social and fraternal facilities incident to such national gatherings. We hope that every reader of the *MEDICAL TIMES* will consider his own interest, and the promotion of the great cause of rational medicine, and come up to Cleveland prepared to contribute his best efforts, and the occasion will be a memorable one.

ILLINOIS.—The eleventh annual meeting of this society will convene in Representative Hall, Springfield, on the first Wednesday in June. The full programme was published in the May number of the *MEDICAL TIMES*. We anticipate the largest and most interesting meeting yet held by this society. Illinois numbers many hundred *eclectic* practitioners, men honored in the profession and social position. All should meet, at least, once a year and compare notes, and exchange thoughts. We frequently learn as much of *real worth* in this way in a week as we would in six months' careless reading. Our profession requires activity, thought—constant and profound; and every meeting with our brothers will stimulate thought, and add to our "stock in trade," and prepare us to better perform the responsible duties of our calling. Come to Springfield on the 4th of June, and come prepared.

WISCONSIN.—The Eclectic Medical Society of this State will be held at the city of Janesville, at Lappin's Hall, Thursday, June the 5th. Some of the Faculty of Bennett Medical College will attend this meeting, and contribute to the general interest. A large number of papers and reports from representative Eclectics are expected. A more thorough organiza-

tion of our ranks is needed in Wisconsin; however, much earnest work has been done, and the June meeting will doubtless be attended with good results. The *programme* of papers to be read, and reports to be made, indicates that the session will be interesting and profitable to all.

OHIO.—The Eclectic Medical Association of Ohio will be held at Cleveland, on Tuesday, June 17, the day preceding the "National."

MASSACHUSETTS.—Eclectic Medical Society will hold the annual meeting June 5 and 6, at the Revere House, Boston.

IOWA.—State Eclectic Medical Society will hold its twelfth annual meeting at Des Moines, on the 4th and 5th of June. Iowa is one of the banner States for Eclectic physicians. A movement is on foot to procure the appointment of Eclectic professors in the State University. The discussion of this question, and a large number of papers and reports, will make their meeting memorable in the history of the association.

SOCIETY MEETINGS.

THE INDIANA ECLECTIC MEDICAL ASSOCIATION —FIFTEENTH ANNUAL SESSION.

INDIANAPOLIS, May 22, 1879.

PROF. W. H. DAVIS, M. D.,

Dear Doctor: The Indiana Eclectic Medical Association met in this city the 14th inst.; in session two days. N. F. Curryer, M. D., of Thorntown, President; G. W. Pickerill, M. D., of Indianapolis, Secretary.

The meeting was the best the Association has had for years, both in numbers and interest. Nineteen new members; one of these a lady—a bright and intelligent little body—Mrs. Joyce F. Hobson, M. D., of Hamilton County. May her star ever be bright. This is the first lady member of the Indiana Association.

One important feature of the meeting was the question of Medical Legislation. Good papers were read on this subject

by Dr. N. G. Smith, of Lewisville; Dr. W. H. Kendrick, of Indianapolis, and Dr. Walter Underwood, of Indianapolis. These papers were discussed, after which the committee, consisting of the three gentlemen just named, presented the following resolution as expressive of the sentiments of the Association :

Resolved, That we are in favor of any and all measures calculated to elevate the standard of medical education, not biased by sectarianism, and recommend that medical colleges elevate the standard of qualification for graduation.

Adopted.

The President, N. F. Curryer, M. D., delivered his Annual Address on the afternoon of the first day's session. This was an able production, highly complimentary to both the head and heart of its author. This, with the other proceedings and papers of the Association, will be published in pamphlet form, edited by the Secretary.

Dr. H. H. McCabe, of Indianapolis, read an able paper on "Animal Heat." The *Herald* says of this and the paper following it :

"The paper on 'Animal Heat,' by Dr. McCabe, of this city, was an able one. It discovered considerable physiological research, and drew its deductions from the hypotheses and theories found strewn along the very front of the age. * * Dr. Pickerill, of this city, read a good paper on 'Human Responsibility.' It discussed home culture, and strongly advocated a restriction of marital privileges by law, and also compulsory education. Altogether, the Eclectics have made a good showing."

The Association had with it its old friend, "tried and true," Prof. Milton Jay, M. D., of Bennett Medical College, of Chicago. Fourteen of the fifteen annual meetings of the Association have found Dr. Jay at his post, and ready and able to lend a helping hand. Much credit is due him for his prompt interest and untiring zeal in behalf of the prosperity of the Association.

An important feature of the meeting was the addition of Walter Underwood, D. D., M. D., of the Reformed Episcopal

Church, of Indianapolis. The Doctor is a whole team within himself; thoroughly Eclectic.

The Association did itself great credit in the selection of J. B. Shultz, M. D., of Logansport, as its President for the ensuing year; an earnest Eclectic and a representative man.

The officers elected for the ensuing year are:

President—J. B. Shultz, M. D., of Logansport.

Vice Presidents—S. S. Boots, M. D., of Greenfield; G. W. Lambert, M. D., of Urbana.

Secretary—G. W. P. Kesill, M. D., of Indianapolis.

Treasurer—W. H. Kendrick, M. D., of Indianapolis.

Corresponding Secretary—C. H. Abbott, M. D., of Indianapolis.

Board of Censors appointed for the year—Dr. C. Hector, of Rochester; Dr. J. L. Taylor, of Logansport; Dr. N. G. Smith, of Lewisville; Dr. W. H. Kendrick, of Indianapolis; Dr. C. H. Abbott, of Indianapolis.

Delegates to the National Eclectic Medical Association were chosen as follows: Drs. N. G. Smith, C. P. Cathcart, W. F. Cunyer, J. B. Shultz, W. H. Kendrick, L. Abbett, C. Hector, J. S. Corndsey, G. W. Lambert, N. J. Clymer and G. W. P. Kesill. It is earnestly hoped all can attend, so as to give Indiana a good representation at the National.

The members elected are: Dr. N. J. Clymer, Bloomingburg; Dr. C. P. Perry, Brooklyn; Dr. Elias Hubbard, Dublin; Dr. S. D. Shepherd, Evanston; Dr. G. W. Lambert, Urbana; Dr. D. Bates, Fort Branch; Dr. J. F. Maddox, Shelbyville; Dr. J. L. Marsh, Greenfield; Dr. H. H. McCabe, of Indianapolis; Dr. J. T. Vanter, of Greenfield; Mrs. J. F. Hobson, M. D., Boxley; Dr. Walter Underwood, Indianapolis; Dr. John Lawdon, Carrollton; Dr. J. M. Tobias, Hartsville; Dr. John Kincaid; Walesboro; Dr. S. S. Boots, Greenfield; Dr. D. Lesh, Indianapolis; Dr. I. B. Hudson, Columbus; Dr. C. P. Cathcart, Westville.

After a very profitable two-days session, the Association adjourned to meet in the city of Indianapolis the second Wednesday in May, 1880.

G. W. PICKERILL, M. D., *Secretary*.

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Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[XXIII.]

EXAMINATION OF THE NASAL CAVITY.

BY PROF. EDGAR READING.

The nasal organ is a very important part of the organization. Its molding has much to do with our personal appearance, and is a prominent exponent of the characteristics of the "inner man."

It is said of Napoleon that he would never place a man in an important military position who did not possess a long nose.

It is the commencement of the respiratory tract, and much wisdom is displayed in the adaptation of "means to ends" for this purpose. But the use of the mouth is too frequently substituted for it.

It is the only organ for the operation of one of the senses, and yet in how few persons do we find this function normally performed. Then again, how essential it is to a pleasant voice that the nasal cavity should be perfectly free.

It is also the seat of a variety of diseases, and too frequently they are mistaken for catarrh, which mistake often leads to serious results. A case is now under my observation where a beautiful young lady, prominently connected, with very flattering prospects, has had her hopes blasted by losing the whole end of her nose from scrofulous ulceration, which

was treated by three reputable physicians for a common case of catarrh. A correct diagnosis and appropriate treatment would certainly have saved the nose.

The fact of the oversight of this class of disease is not to be attributed to their infrequency or insignificance, but for the want of a proper knowledge to explore for them.

The construction of the cavity is such as to present many obstacles to our view; and then a want of an accurate idea of the parts as regards their formation and color is in the way of making a correct diagnosis.

For this purpose we need a suitable light, and the sunlight is to be preferred when we can avail ourselves of it; but when we cannot, then we must resort to some artificial light, which I find to be supplied to the best advantage by the calcium lamp. To examine the anterior nares, a good speculum is indispensable. To examine the ends and the upper parts of the turbinated bones and the different parts of the meatus, it is best to depress the chin in the neck gradually, at the same time moving the head slightly from side to side. To examine the lower part of the turbinated bone, the head must be gradually thrown back.

The posterior nares are examined with the aid of the rhinoscope. In some cases the nervous irritability of the palatine arch, pharynx and surrounding parts makes it very difficult at first to explore these parts, but they will soon become educated to it so as to overcome all of these difficulties. It also requires considerable practice in order to make all of the manipulations to an advantage; and some, of course, become much more expert than others. But it is astonishing to see how thorough and satisfactory an examination we are enabled to make after a sufficient amount of familiarity is acquired.

The question arises, what do we expect to see? In the normal condition of the parts, we find the mucous membrane over the septum, middle and superior turbinated bones, thin, smooth and very delicate and firmly attached to the parts, but over the inferior turbinated bones the attachment is loose and the membrane is thicker and more velvety. As we pass back

toward the posterior nares we also find a similar condition. This is very readily examined with a probe, which must be used lightly, as the parts are extremely sensitive, and in many cases strong and robust men become pale and faint.

In many cases, it is so thickened from the effects of disease and the sensibility so impaired, that the probe can be used with freedom without causing much uneasiness.

The color is florid. In some places it is mottled by a yellowish appearance, shining through, which is produced by the thin covering of the bones and cartilage.

No part of the organization affords more interest normally and pathologically under a minute examination. The palatine arch, the eustachian tube, the posterior nares presenting the ends of the turbinated bones and the septum, the roof of the pharynx, can all be seen *in situ*. Through the anterior nares we can get a full view of the whole cavity, showing the beautiful scroll-work of the turbinated bones.

When we examine these parts pathologically, our interest increases. In acute catarrh we find the membrane swollen, red and dry, or covered with moisture instead of mucus. The hypertrophy is sometimes so great as to obstruct the passages. The redness gives way to a paleness after a few days, and the discharge thickens and finally becomes of a cream-like consistence, after which the membrane gradually assumes its normal condition.

In chronic catarrh we find a very different state of things. The morbid condition may be confined to the septum, to one or more of the turbinated bones, to one side only, to the posterior nares more frequently, and sometimes it takes in the whole cavity. The color of the diseased parts is a whitish or grayish red, and some parts, particularly over the septum, the membrane is thin and smooth, while in other places it presents a granulated surface. The turbinated bones are more or less hypertrophied, and sometimes so as to obstruct the passages entirely. This is confined to the bones mostly in chronic catarrh; whereas in the acute form the membrane is the seat of the enlargement. In some cases of long standing, the epithelium becomes banked up into a white granulated sur-

face on one or more of the turbinated bones, more particularly on the inferior surface and posterior ends.

These various stages of hypertrophy sometimes present the appearance of tumors, and I have known them to be operated upon for the purpose of removal, and serious laceration is a result of such uncalled-for operation.

I have also had cases presented for severe and obstinate chronic catarrh not yielding to the ordinary remedies in the least, which I have proved upon a thorough exploration to be nothing more than a partial closure from deformity. The septum frequently encroaches more or less upon one side, and the other bones are not always uniform in size and arrangement. Some of these supposed cases of catarrh are perfectly free from it, unless it may have been excited by the treatment adopted for it.

The nasal cavity sometimes becomes the receptacle for foreign bodies, which remain there for a long time embedded in the membrane, producing more or less discharge, which is frequently mistaken for catarrh, scrofulous ulcers, or some other morbid action. Recently I had the pleasure of removing a button embedded out of sight beneath the middle turbinated bone. No one knew how it got there or how long it had been there. The ulceration which it had produced had been skillfully treated, but the nature of it had been mistaken. It had proved so obstinate that it was expected to assume a malignant form, and a cure was despaired of. When the cause was removed, of course the cure was rapid, and with but very little treatment.

Polypus is another disease which can be frequently revealed in its early stages by exploring, and while it can be removed with greater facility. The symptoms of polypus are very similar to those of catarrh, and are usually treated for it for a long time, while the polyps continue to grow, and the catarrhal symptoms become more aggravated. It is usually attached to the anterior end or inferior border of the turbinated bone, and they have a single or many points of attachment. The generally received opinion that there is but one point of attachment is not correct by any means. In fact, they are

distinct polyps growing from individual points, but frequently so close together that it is only by removing one in view that another is exposed. When they are young they are very soft—a thin, delicate sack containing a watery liquid, but age makes them thick, tough and fibrous, and much more difficult to be permanently eradicated.

The customary way of removing polyps by introducing the forceps and grasping what is supposed to be the mass of disease, but which we frequently prove to be a turbinated bone or fold of the membrane, is certainly not scientific or professional in this age. If the forceps are to be used it should be done under a full view of the parts by the aid of a suitable light and speculum; but the most effectual remedy is the electrocautery, of which we shall have more to say in a future article.

In malignant tumors of the nasal cavity, it is of the utmost importance to make a correct diagnosis in the early stages, and this can only be done by a thorough exploration. The treatment adopted to remove ordinary or more malignant tumors is only calculated to aggravate malignant tumors. Many a nose, and occasionally a life, might have been saved if a correct diagnosis had been made in time, and all of the diseased parts thoroughly removed at once by a surgical operation.

In that loathsome disease, ozæna, the symptoms are sufficiently obvious to make a correct diagnosis without the necessary means for exploration, but in this disease they are absolutely necessary to enable us to locate the disease and to make the necessary local applications. The ordinary douches, insufflations, powders, vapors, etc., are of but little account here, except for cleansing. It is only with the parts diseased fully exposed and applications made directly to them, together with proper constitutional treatment, that we can expect to succeed.

The advantages to be gained by making an early diagnosis in different forms of ulcers and syphilis is obvious, and can only be obtained by bringing the parts in view. It may not occur to every one that a thorough cleansing of the parts is advisable before making examinations.

[XXIV.]

SYMPTOMS OF WORMS IN CHILDREN.

BY S. H. POTTER.

Practitioners are daily urged to tell whether children have worms ; and average mothers, nurses, etc., attribute to worms, as the cause of most of the derangements which children manifest. Doctors should be ready to decide, and may easily qualify themselves to do so by posting themselves up on a few conceded facts.

1. *Seeing* the worms or parts of them pass away is the only infallible indication of their presence, because there are so many other causes of irritation of the alimentary canal which give rise to similar symptoms to those induced by the presence of worms. Scrofulous children are most liable to be infested with them.

2. *Symptoms* characteristic of the different kinds of worms are: For thread-worms, quarter of an inch long, very common ; habitat, cæcum, whole length of colon and rectum ; often comes away in masses—itching of the anus. For round worms, tenesmus and vertigo. For tapeworm, abdominal pain, gnawing in character, with some swelling about the umbilicus. These form the more special diagnostic symptoms. Others, such as diarrhoea of a dysenteric kind, with much tenesmus ; frequent, painful and involuntary micturition ; obstinate leucorrhœa, convulsions, vertigo, actual syncope, perversion of sight, sometimes temporary blindness, strabismus, etc.

Worms are only dangerous to life when they emigrate to neighboring important organs, such as the air-passages, or the liver, etc. It must be remembered the cæcum is the headquarters of the threadworm ; therefore remedies by the mouth are as necessary for their removal as those by the enema.

I have met with many physicians who believed that worms are harmless, or even beneficial, by acting as scavengers in the alimentary passage, and who always refused to prescribe or allow anthelmintics to be given to the children or adults they attended. This is often a serious error. I was called to see

a Mrs. B., who had been treated many months for phthisis. I diagnosed her case as one infested with worms, which greatly offended the lady. As I was about to leave, she took one of her characteristic "coughing and choking spells." I administered an efficient vermifuge; soon after a long round worm was drawn from her mouth, and within two hours a bunch (little and big) consisting of thirty worms, passed with a copious evacuation from the bowels. Within a few days the lady was free of her "choking coughing spells and consumption," making a rapid and complete recovery. I have met many other cases which had been treated for other maladies, in which anthelmintics soon relieved and promoted rapid recovery.

On the other hand, there seems to be too great tendency to attribute to worms maladies of which they are innocent. I was called in consultation; a boy, age 7, who had had severe colic, spasms, tympanites, etc., about five days; had been treated for worms without any relief. I suggested that a copious injection be slowly and carefully given; which being done, the bowels thus filled and expanded, the cause of all the misery and alarm appeared in the form of more than a pint of water-melon seeds, which the patient had amused himself by swallowing, while his brothers had regaled themselves on the substance of the melons only.

A few days ago I was called to a boy who had also been treated for worms, having great pain, with cramps and spasms intermitting forty-eight hours. I was assured by his mother that his diet had been faultless; "she attends to that." A copious injection was followed by a large stool, in which was found about a teacupful of coarsely-chewed orange rinds. His sister explained the cause by saying, "He always gathers up the rinds when we eat oranges, hides from his mother and eats them. He ate in too much of a hurry this time, and forgot that his stomach had no teeth."

It requires great care in examination, sound discretion in diagnosis and treatment, in similar emergencies we often have to meet and relieve, or suffer because a wiser and more skillful one succeed us, and our defects are made apparent.

[xxv.]

OZONE, AND SOME OF ITS USES IN THE SICK-ROOM.

BY DR. H. HILDEBRAND.

Condensed from a paper read before the Eclectic Medical Society of Chicago, June 4, 1879.

When walking through the wards of the large hospitals in Helsingfoes, in the northern part of Russia, my attention was attracted by what I thought was a wreath on the floor and the walls of the rooms. By closer inspection, I found that finely-cut branches and leaves of the pine-tree were placed there, imparting to the atmosphere a very faint odor of pine leaves. Then I was told it was a very old usage to employ the above-named material in this manner, and that the object was to purify the air. This was about twenty years ago, and here I had for the first time a practical example of the purification of the air in closed rooms, by ozone, the essential oil of the pine leaves, acting as an ozonizer on the oxygen of the air. Another point of interest presents itself in this case. The leaves were strewn along the walls of the rooms, which arrangement answers a very good purpose. For, as the walls of rooms, in common with all solid bodies, have the property to condense gases on their surface, it appears to be a very rational proceeding to place the ozone generator, or the oil containing pine leaves, to the lower part of the walls, inasmuch as the ozonized air, carried upward by the warm current of air, would come into the closest contact with a comparatively large amount of the noxious impurities of the air.

The discovery and history of ozone fills one of the most brilliant pages of the exact sciences. Though observed by Von Marum as far back as 1780, it was reserved for Schonbein, of Basel, in 1840, to recognize ozone as a distinct form of matter, having an identity of its own, independent of the method by which it was obtained. First, by its discoverer, considered a compound substance, chemists are now agreed that ozone is an allotropic oxygen, *i. e.*, oxygen modified in its qualities by an altered arrangement of its atoms. It has not been possible, as yet, to obtain ozone in a pure state. Ozone,

however prepared, contains a large admixture of air or oxygen. Oxygen may be ozonized by different methods; by the action of the electrical spark—or the glow or silent discharge—on pure oxygen. With the silent discharge, a much larger proportion of the oxygen is converted into ozone than with the spark. The best ozonizers are those on the principle devised by Siemens, in which a large surface of gas is exposed to the silent discharge taking place between the different poles of the induction coil used for this purpose. One-twelfth to one-tenth of the original volume of oxygen may thus be converted into ozone. On a grand scale, ozone is produced during a thunder-storm in our atmosphere, and it is very probable that here, too, it is principally produced by the silent discharge between clouds charged with different electricities, or between clouds and objects of our earth.

Ozone may also be obtained by electrolysis of diluted sulphuric acid, or by slow combustion, *i. e.*, by placing phosphorus in moist air. It has been advised to put matches with their free ends into water, when the phosphorus mass of the other end, kept moist by the capillary suction of the wood, will generate ozone, which will act as a purifier to the air. This I have found to be an effective process.

Further, the slow combustion of ether and volatile oils will produce ozone. Oil of turpentine and other essential oils possess the remarkable property of charging themselves with oxygen when in contact with air, and they do so especially under the influence of light. Here no chemical combination occurs, but the absorbed oxygen is converted into ozone, which is capable to act on other oxydizable bodies. Substances like these oils are called ozone-carriers. I now frequently make use of the oil of turpentine as a means to purify the air of the sick room, and prefer it to chloride of lime, the desire of ozone to enter into chemical combinations with other, and especially organic substances, being as great as that of chlorine, bromine or iodine. An old newspaper sprinkled with oil of turpentine and hung up on a line, if possible in the sunlight near a window, answers an excellent purpose; or an atomizer may be used, and 1 to 2 drachms of oil of turpentine be sufficient for

a large room. The immediate effect on the patients is often very striking. They at once breathe easier, the chest expands more, and, on some, it has an exhilarating, and, on all, a refreshing effect. It is self-evident that an occasional perfect change of air should not be omitted. I have proved by experiment that when a large paper saturated with ol. tereb. is hung up over each cadaver in the dissecting room very little, if any, complaint is made about offensive odors. The ozonizing quality of oil of turpentine has also been used for washing purposes. When the washing of linen is done in water containing oil of turpentine (equal parts of ol. tereb. and aq. ammon, are well shaken in a bottle and then mixed with the water), it becomes much whiter as if treated in the ordinary way, since the generated ozone exerts its bleaching influence, and it may be expected that here ozone is active in destroying disease germs. For angina crouposa and diphtheritica inhalations of bromine have been recommended and used with good success by Schutz in Prague many years ago (Bromine gr. vi-x, aq. dist. ℥iv-vi), and inhalations of ol. tereb. have been successfully used for the same maladies. As ozone, bromine, chlorine and iodine have similar effects on animal tissues, it is highly probable that the efficacy of the ol. tereb. is due to the latter's quality as an ozone-carrier and generator. Ozone occurs also in our atmosphere, but it is not possible as yet to estimate the actual amount of ozone at any time present in the atmosphere, yet a chromic scale has been applied to the indications of test papers (iodized starch paper) to ascertain approximately its relative amount in different localities, and its variations in the same locality. The following remarks are taken from an article on ozone in one of our later works. Ozone is rarely found in the air of large towns, unless in a suburb, when the wind is blowing from the country; and it is only under the rarest and most exceptional conditions that it is found in the air of the largest and best ventilated apartments. It is, in fact, rapidly destroyed by smoke and other impurities which are present in the air, and where large bodies of men have fixed their habitations.

Andrews has observed this destructive action at a distance of one or two miles from a manufacturing town, even in fine and

bright weather. Ozone is rarely, if ever, absent in fine weather from the air of the country; and it is more abundant, on the whole, in the air of the mountain than of the plain. It occurs also in larger quantity near the sea than in inland districts. It has been found to an unusual amount after thunderstorms—a fact which is favorable to the view that the presence of ozone in the atmosphere is due to the action of the free electricity of the latter on the oxygen of the air. The amount of ozone in the air is greater, according to some observers, in winter than in summer, in spring than in autumn.

According to Houzeau, the maximum quantity of ozone in the air never exceeds $\frac{1}{700,000}$ part its bulk, a fact of the greatest importance, for ozone in a more concentrated form acts as an intense irritant to the eyes, nose, the air passages and lungs, similar to chlorine, etc., and proves fatal to animal life.

[XVVI.]

DISEASES OF THE NOSE.

[*Excerpts from Prof. Goss' Practice, Continued.*]

LUPUS—WOLF, SKIN CANCER.

Old writers called this form of epithelial cancer "Lupus," from its destructive character. Its seat is most commonly on the nose, but it is sometimes seen on the face, lips, cheeks, eyelids and even the neck; seldom on the body. It commences as a dull-red tubercle, which, in many instances, I have known to remain indolent for several years, and then, finally, a brown scab forms upon its summit, which, if removed, was replaced by another by the desiccation of an ichorous fluid escaping from the abraded tubercle. And if these scabs are often removed and the part irritated, very soon ulceration is set up, which often progresses rapidly, until the face is partially destroyed, and sometimes it follows along the nasal ducts and destroys the fauces, glottis and tonsils and terminates in the death of the sufferer.

Treatment—Internally I administer some good constitutional alterative until the effect upon the system is apparent. I apply locally the chloride of gold or the chloride of

zinc to any unhealthy, sprouting granulations that may appear; and, as soon as they are destroyed, I then use the glycerole of *hydrastis canadensis*; this causes healthy granulation at once. If there is great irritability in the parts after using the zinc or gold caustic, or if I find that the ulcer has been improperly treated, I poultice with elm bark until all irritability subsides, then apply the *hydrastis* as above, until the ulcer heals up. With this treatment, I have cured quite a number of extreme cases. In some very extreme cases, where the ulceration is very rapid, *cicuta* ointment applied for a short time will aid in subduing the irritability. It should be very mild, especially if the ulcer covers a large space. After using the alterative for two or three weeks, if there is not perceptible improvement, then I use *staphysagra* in doses of three to five drops three times a day. There are some cases where the ulceration is rapid and the discharge from the part is acrid and corrosive to the adjacent parts; here I find the iodides the best remedies.

OZÆNA—ULCERATION OF THE NARES.

The name *ozæna*, from the Greek, signifying a stench, is an ulceration of the mucous membrane of the nose, from which fetid, purulent or sanious matter is discharged. In some cases there is also lachrymation from obstruction of the ducts leading from the lachrymal glands to the nose. *Ozæna* follows repeated attacks of *catarrh*, and is an evidence of a strumous or syphilitic taint in the constitution. I do not think it often, if ever, occurs in a sound constitution. And the constitutional taint must be corrected before a cure can possibly be performed in all cases.

Treatment.—This is one of those diseases that exhibits the skill of the physician, as it does not often get well itself. If the discharge is yellowish-green and fetid, the chloride of gold is a good internal remedy, 1 gr. to 8 $\frac{3}{4}$ of water, dose one teaspoonful three times a day. And the nares may be washed out with a solution (lukewarm) of bichromate of potash, say 1 gr. to 4 $\frac{3}{4}$ of water, gradually increased in strength until it slightly stings. If the ulceration is very rapid and the dis-

charge scathing to the parts, the iodides will cure the disease in most cases.

POLYPI—POLYPUS OF THE NOSE.

Polypi of the nose are either gelatinous or fibrous. A polypus of the nose is readily seen, if not very high up the nares, by using the nasal speculum. The nose is generally more or less enlarged on the affected side, and frequently there is a thin nasal discharge.

Treatment.—Surgeons recommend torsion, but not only does that method often fail, but in one instance in this city I knew a case that proved fatal. I admit that the operation was very badly performed in this case. Medical treatment is often very safe and successful. I am now treating a little boy, three or four years old, from Alabama, and he is apparently well. I am using the tincture of thuja in one or two drop doses, three times a day, and applying thuja and bayberry in powder to the polypus. I have applied sanguinaria and bayberry in powder, two parts of the latter to one part of the former, with good effects; but internally, nothing has appeared so good as thuja in my hands and used externally. It has an affinity for morbid growths and has the power to destroy them. When they are taken away by torsion they usually return, but when cured by the above remedies they do not return, consequently I try these remedies first. If they fail, then torsion may be resorted to also.

EPISTAXIS—NOSE-BLEED.

Epistaxis is a symptom of some other disease, as congestion or anæmia. In old age it frequently presages apoplexy. It may occur in females from a sudden suppression of the menstrual discharge. The blood may be discharged in front or it may pass through the posterior nares into the fauces. It may be the results of impoverished blood, or a hemorrhagic tendency may be the cause of it. It soon exhausts the vital powers.

Treatment.—If the blood is bright and the case does not depend upon anæmia, aconite in doses of a half-drop every fifteen minutes should be tried. On the contrary, if the blood

is dark, tincture of saffron, in doses of three to five drops, should be tried. If it is from cerebral congestion, which is preceded by headache, belladonna, in doses of three to five drops every three hours, will control it. As accessory measures, the application of ice or cold water to the head, neck and back should not be forgotten; raising the arms above the head sometimes checks the hemorrhage. I have checked it by plugging the nostril with lint or cotton wet in a solution of the persulphate of iron. Drop doses of hamamelis every hour will sometimes check it. Cold to the testes often checks, ice or cloths rung out in cold water.

CATARRH, CORYZA—COLD IN THE HEAD.

This disease commences with a dryness, which is soon followed by a thin mucous discharge, with frequent sneezing and a copious flow of tears from the eyes in many cases. It soon spreads to the posterior nares, the fauces, down into the larynx, trachea and bronchial tubes, and then it causes persistent coughing and more or less febrile excitement. There are two distinct forms of the disease; one caused by sudden exposure to cold air or sudden changes in the atmospheric temperature, suppressing the elimination of morbid matters from the blood. This form occurs in winter, spring and fall. And the other form occurs in summer; and so often about harvest and the time of making hay, that it is called hay fever. This variety is doubtless caused from a parasitical fungi, called *amaba*, a very minute form of fungi, the spores of which float in the atmosphere in summer, and readily lodge in the nasal mucous membrane, which they inflame by their presence.

Treatment.—The last-named form is readily checked by inhaling the vapor of a weak solution of the tincture of *sabadilla*. Ordinary cold may be checked by *aconite*, in drop doses every two hours, alternated with *asclepias* as a diaphoretic.

SELECTED.

Uterine and Vaginal Applications.

Dr. Suesserott, of Chambersburg, Penn., writes: "Long familiar with the almost magical effect of a thick cream of sub-

nit. of bismuth, mixed in pure glycerine, when applied to blistered surfaces, burns, and ulcers externally, as well as the soothing and curative action of the salts of bismuth in ulceration of the stomach, I conceived the idea of using it in ulceration of the cervix uteri. A sufficient experience in that direction has convinced me that the result is no less wonderful than when externally applied. This may possibly be no new suggestion to some of your readers. But, acting on the principle of 'proving all things, and holding on to that which is good,' I would earnestly urge upon all gynecologists, who are not fully satisfied with what they are now using, to give it a trial and report through the columns of your excellent journal. I have used a thick glycerole of tannin, dry tannin, glycerole of aloes, and the various astringent, sedative, and escharotic substances that have, from time to time, been suggested; but there is no one thing that I have applied that gives as much immediate relief as the subnit. of bismuth and glycerine. The congestion of the cervix is at once abated by the glycerine through the exosmotic action that is set up, and the ulcers disappear as though waved away by a fairy's wand.

"If this article is not already too long, you may append my method of making vaginal applications, which I will endeavor to illustrate. I have a glass tube, a little longer than, and sufficiently small to pass into, an ordinary reflecting glass speculum. I take a pledget of absorbing cotton, on to which I have tightly looped a cord of sufficient length to project beyond the vulva, when the cotton is in contact with the womb. Having passed the cord through the tube, I draw the cotton in to the extent of an inch or two, so as to have sufficient space for whatever quantity of bismuth and glycerine, tannin, aloes, or whatever I am about to introduce within the vagina. The speculum having been properly applied, so as to bring the ulcerated surface within view, I next insert the tube, with its contents, within the speculum, and with a wire probe, armed with a disk of metal about three-fourths the diameter of the tube, I press the cotton to its place, withdrawing the tube and holding the application *in situ* until the speculum is partially removed. As soon as the walls of the vagina fall over the

cotton, the probe may be taken away and the medicament is just at the spot desired. My custom is to allow it to remain for thirty-six or forty-eight hours, when the cotton is easily removed by means of the cord by the patient herself. After removal I recommend an injection of a saturated solution of borax or slightly diluted whisky, once or twice a day for two days, when I make another application. If the pledget of cotton is too large it will not remain in place as well as a smaller one; but this must be determined by the judgment of the operator. A glass rod would serve a very good purpose in pressing the cotton out of the tube, and where certain articles, such as tinct. of iodine, have been used, would be better than metal. Its liability to fracture in handling is the only objection that could be urged."—*Medical Record*.

ELECTRO-THERAPEUTICS.

Continued from Page 79.

BY JOHN W. LANGLEY, M. D., S. B.

The batteries described in the previous article are compact, powerful and portable, but they alone will not give the kind of current best adapted to physiological work unless the number of cells is large, because the current which any battery gives depends not only on the structure of the cell, *i. e.*, the plates and acid employed, but also on the resistance of the materials outside of the cell. The resistance of the tissues of the body, muscle, nerve and skin is very great, so that the current from one cell sent through the fore-arm, for instance, is only about one-millionth of what it would be if sent through a knitting-needle. This explains the fact that no shock is felt when we take hold of the two poles of a battery composed of one or two cells, while the same battery will decompose water energetically, when the terminal wires are dipped into dilute acid; in order to receive a sensible shock or to produce any permanent changes in the patient, the current must be from ten to one hundred times the above strength. In order, then, to use the galvanic current, a large number of cells is absolutely indispensable, and, consequently, the apparatus will be both cumber-

some and expensive. This large number is employed merely to drive the current against great resistance, and even with one hundred cells the current through the patient will still be less than one-thousandth of that which would flow through a wire five or six feet long, and of the diameter of a needle.

Fortunately, multiplying the number of cells is not the only method of forcing a current against resistance. The induction coil is the practical substitute for a large battery, because by its means we can so intensify the electro-motive force, which is the impelling force, that a large fraction of the current can be driven against the resistance of the patient's body. A little induction coil weighing less than a pound can thus temporarily force a greater current than would be given by a thousand cells of the original battery, and hence, by using only one cell and a coil, the patient will receive more electricity than from twenty cells without the coil.

Most of the portable forms of physicians' electrical apparatus include the induction coil as an essential part, this is frequently called the shock-giver because it is usually so managed as to produce strong spasmodic contractions in the patient, and there is a somewhat general impression that this is its only function, whereas, as a matter of fact, this is only one of its effects, and that by no means the one most generally useful. The complete portable apparatus is inclosed in a small box less than a foot square, and it should comprise the following articles: First, one or preferably two cells of the Grenet or Frommhold type; second, a complete induction coil with a spring interrupter; third, two conducting wires, two metallic handles and a few electrodes to be described hereafter.

The induction coil is the most important article in the physicians' electrical outfit. It has nearly the same position in the administration of electricity that the entire apparatus of the pharmacist has in the employment of drugs, because by a good coil we can obtain almost any kind of a current we desire, and we can make the current either stimulating, tonic, alterative or soothing, at will; by a slight adjustment occupying only a few seconds we can make the flow intermittent, sharp and intolerably violent, or nearly continuous and of imperceptible

mildness. A really good coil, however, which will satisfy these conditions, is difficult to find. Although the apparatus is spoken of as a coil, it is in reality two, but one being within the other, only the outer is ordinarily seen. Beginning with the axis or center, we have: First, a bundle of iron wires, usually about five inches long and three-quarters of an inch in diameter. They are tightly bound together and painted. Over these is wound the *primary coil*, which consists of from ten to fifty feet of insulated coarse copper wire; the free ends of the wire are brought out and fastened to fixed conductors in the baseboard of the instrument. These connections should be such that two binding posts marked "primary" are attached to this coil, while two other points are left free for the battery connection. Over this is wound the *secondary coil*; it should be completely insulated from the coil inside, and usually should have no mechanical connection with it to allow either of one coil being slipped out of the region of influence of the other, or what is virtually the same thing, a movable metal tube, to be inserted between them. The secondary coil consists of very fine wire, about the diameter of a horse-hair, and from 100 to 500 feet in length.

The interrupter consists of a spring, and a post carrying a screw whose point can be advanced or withdrawn from the spring, and which can be fixed in any part of its course; both the tip of the screw and the point on the spring, which touches it, should be made of platinum, because here destruction and burning of the metal are constantly going on while the apparatus is in action. One end of the primary wire is fastened to the base of the spring, and a wire runs from the screw-post to one of the poles of the battery. The action is as follows: When the current passes through the primary wire, the soft iron core becomes magnetized; this attracts the free end of the spring, which, therefore, moves away from the tip of the screw against which it had been resting, and thus breaks the current; the core then loses its magnetism, and the spring returns to its first position, which again establishes the current, causing the spring to be attracted by the core; these operations will, therefore, continue to repeat themselves as long as the battery

is in action, the spring serving to measure out definite amounts of current dependent on its rate of vibration.

The action of the entire coil is virtually to take a current of feeble strength and to deliver it cut up into short lengths (intervals of time), with a greatly enhanced intensity, but also an equally diminished duration. Starting from the battery, we have a current which would flow continuously through a wire for hours if there was no break in the circuit. It does, in fact, flow for a sensible time, which, for the sake of illustration, I will assume as one one-hundredth of a second; this flow takes place through the contact points on the spring, and so around the primary coil back to the battery; at the end of this time, the core has been fully magnetized, and a certain part of the current has been employed in producing the magnetization; the part so employed does not return to the battery, but remains in a latent, or technically, a *potential* condition in the molecules of the iron. I will call this stage one. Stage two now commences. The magnetized core attracts the spring which moves away from the screw point, thus breaking almost instantly the battery circuit, and hence shutting off the onward flow from the battery through the primary coil; simultaneously with this act the iron core begins to lose its magnetism, and to restore to the primary coil the current formerly absorbed from it. This loss of magnetism is not instantaneous, and I will call its duration one five-thousandth of a second, during which nearly all the potential electricity of the magnetized core converted into a real current rushes through the convolutions of the primary wire, and bursts out at the ends between the screw point and the spring in the form of a brilliant spark; this is the *interrupted primary*, and if there are two poles connected properly with this circuit, the patient who is put in contact with both poles at this instant will receive a large part of this discharge.

The amount by which the intensity of the current has been raised is easily calculated; it is nearly in the inverse ratio of the duration of the two stages, for in the first electricity was being virtually stored up in the apparatus during one one-hundredth of a second; during the second stage this store was dis-

charged in one five-thousandth of a second, therefore its intensity is fifty times greater than that of the galvanic current from which it was derived. Actually, however, its intensity is a trifle less than this, because there is an unavoidable loss of electricity in the double change.

The effect on the patient is this, that while the original galvanic current from one to two cells would have produced *no* sensible effect, because of the great resistance of the cuticle and muscle, this temporary powerful current can make itself felt even against the resistance, and so, though the time is very brief, yet in that time more electricity flows through him than would have occurred from a prolonged contact of his person with the battery wire. For medical induction coils we may then draw this important conclusion : *The interrupted primary current flows in a definite direction, and the ends of the circuit have definite, positive and negative poles ; it is a modified battery current, and has all the properties of the galvanic current, except those dependent on the fact that it is not continuous.*

The induction coil being really double, it is capable of giving two kinds of currents, and, in the preceding article, the interrupted primary current was shown to be similar to the one from the battery in being always in one direction, so far as the patient is concerned, but that it differed from it in intensity, and in the fact that it was discontinuous.

The *secondary*, frequently called the Faradic current, is essentially different, and ought never to be confounded with the other ; it is a double, not a single discharge, and it is pre-eminently stimulating ; the mechanism by which it is produced is as follows : The coil of fine wire, called the secondary, and which forms the outer visible roll, being completely insulated from the one within, it has no connection with the primary, and no portion of the battery current flows directly through it. All electrical disturbance within it, and all effects which it produces, are dependent on induction, exerted by the iron core and the primary coil.

The secondary wire is continuous, and has of course two ends, which are the poles ; these ends are therefore provided

with binding screws, marked secondary, to which the electrodes communicating with the patient may be attached; when this is done, it is evident that the patient and the wire together form a closed loop or circuit everywhere, and that no other current than that created by induction can pass through his body. Indeed, so perfectly distinct are the two parts of the entire induction coil, that it would be easy to administer electricity to two persons at once; one being connected with the interrupted primary poles, and the other with those of the secondary.

So long as the battery current flows steadily through the apparatus, it does not produce any apparent effect on the outer coil; but if the battery be increased or diminished, or if its current be turned on or off, then while these changes are in progress, and only during the actual period of change, will there be a current in the secondary. When the spring is attracted to the iron core, and the battery connection therefore broken, the powerful and short-lived discharge, which I have called the interrupted primary, *induces* in the secondary wire a wave of electricity, which travels along it in a definite direction, which, when it reaches the free end or poles, makes one positive and the other negative; the patient, therefore, will feel a single shock of very brief duration. The spring now commences its backward movement, and soon touches the point of the screw, thus completing the circuit; the rush of the battery current through the primary, and the magnetization of the iron core now commence, and as this is a period of change in the electrical state of the wires, there will be another current induced in the secondary coil, but its direction will be the reverse of the former one, hence the pole which was previously positive will now be negative; the patient will again receive a shock, but the flow through his person will be opposed in direction to that which he received when the spring was first attracted.

For every complete vibration of the spring, there will be two oppositely moving currents in the secondary coil—one for the “break,” the other for the “make circuit” in the battery wires—and the point which I desire to emphasize is, that the

secondary coil necessarily gives a double current. If these two currents were precisely equal, then as either pole becomes alternately positive and negative many times per second, the patient would be subjected to equal and oppositely moving currents, and neither electrodes would be permanently of one polarity. Under these conditions, it is a matter of absolute indifference which electrode is placed near the trunk of a nerve, and which at its periphery, or which shall be placed near the origin of a paralyzed muscle.

Actually, however, these currents are not quite equal to each other; the break circuit is generally the stronger, and hence there is a feeble resultant which makes one pole more strongly positive during one movement of the spring, than it will be rendered negative by the return movement. There are special devices by which one of these waves may be suppressed; but most medical induction coils are made in such a way, that the two currents are so nearly equal that it makes no difference, except in a very few cases, which electrodes shall be placed in any one spot. We may then draw the following conclusion: *The secondary current is a double current, flowing alternately in opposite directions; the ends of the circuit do not have (practically) definite, positive and negative poles; it is unlike a battery current, and will not cause the same chemical and physiological changes that are induced by the galvanic and interrupted primary.*

(To be continued.)

Treatment of Gastric Catarrh.

Dr. Kuster has experimented for many years with the various treatments recommended for this affection; he rejects almost absolutely the use of the stomach-pump. Among the various preparations usually employed he retains but three; hydrochloric acid, Carlsbad salts and nitrate of silver. He gives the acid in five to eight drop doses, in a glass of water, before and after meals; the Carlsbad salts by one or two dessert-spoonfuls daily, in a little warm water; the nitrate of silver in pills, each containing .005 of nitrate and .007 of extract of belladonna.

The following are the indications: Where the secretion of gastric juice is deficient; when the patient not only complains of loss of appetite, but also of pain and weight, particularly after the use of meat, but says nothing of flatulence nor acid eructations, hydrochloric acid is indicated. These symptoms are produced by insufficiency of gastric juice, and are frequently found among smokers. Carlsbad salt is employed in just the opposite class of cases, in which it is useful by neutralizing the excessive acidity of the gastric juice, and checking the secretion of gastric mucus.

Although nitrate of silver has been administered in simple ulcer of the stomach, Kuster believes it to be dangerous practice. He gives it in every case in which the other two have failed, where probably no ulcer exists. He has found it to be of particular benefit in women presenting some tendency to chlorosis, and having a nervous and irritable temperament.—*Translation Detroit Lancet.*

Empyema Treated by Aspiration and by Open Incision, Without Injections.

BY JAMES J. HEALY, M. D., AND E. P. HURD, M. D.

DEAR SIR: Two cases of empyema, under the care of Dr. J. J. Healy, have terminated successfully; the first, after two aspirations with Dieulafoy aspirator; the second, after making a permanent opening into the thoracic cavity, from which pus exuded almost constantly for more than a month.

CASE I.—J. C., aged 40, unmarried; an intemperate man; day-laborer by occupation; broken down by bad habits. Came under Dr. Healy's care in January last. The patient suffered for some ten days from fever, with pain in right chest, dyspnoea and prostration; fever assumed a hectic type, with profuse sweats. Dr. E. P. Hurd was called in consultation. The diagnosis of the attending physician—pleurisy of the right side, with effusion—was confirmed, and the necessity of immediate aspiration concurred in. Pulse was then 130; fever-heat 103; respiration 40 per minute, and performed with much distress. There was decided bulging of the thorax

posteriorly and in right infra-axillary region, and dullness all over the base of right lung, and loss of respiratory movement and murmur. Respiratory sounds on the left side were normal, but exaggerated. The patient could lie only on the affected side.

The aspirator needle was introduced between the eighth and ninth ribs, on a line with the inferior angle of the scapula, and a pint of laudable pus withdrawn. This gave great relief to the patient, who commenced forthwith to mend. The aspiration was repeated the week following, but only a few ounces of pus were withdrawn.

The subsequent history of the patient is one of uninterrupted recovery.

CASE II.—The treatment of this case coincides in a marked manner with that of Prof. Post, recorded in the *Record* for April 5, 1879. It illustrates the safety with which, in cases of empyema, a permanent opening, whether by knife or trocar, may be made into the thoracic cavity.

M. D., a child of three years, was taken ill with pleurisy about the 1st of February. Dr. Healy saw the patient about the 14th, and diagnosticated pleurisy with effusion. Pulse 110; respiration 48; temperature 103°; decided bulging of right side; left laboring heavily; right side almost motionless; patient lies on the sound side and back; dyspnœa; marked hectic.

Percussion indicated great dullness over whole of right chest, front and back, below level of nipple; left lung was abnormally resonant throughout. Auscultation gave no respiratory sound over right base; on the left side the respiratory murmur was puerile. Above the line of dullness, on the right side, there was bronchial breathing.

Dr. E. P. Hurd saw the patient in consultation, and concurred in the diagnosis and the mode of treatment demanded. At this time, the pulse was 160 and feeble, and the dyspnœa was extreme. The aspirator needle was introduced between the seventh and eighth ribs, just in front of their angle, and eight ounces of laudable pus were removed, to the great relief of the little patient.

On March 4, the aspiration was repeated, the right chest being full of fluid, and the dyspnoea being urgent. Thirty ounces of pus were withdrawn, with signal relief to the suffering child.

On March 7, the pleural cavity being again oppressed by a purulent collection, Dr. Healy made a permanent opening between the ninth and tenth ribs, on a line with the inferior angle of the scapula, dissecting his way into the thoracic cavity with a common bistoury; a gush of matter followed, which was somewhat fetid. A fistulous opening remained, which only required to be occasionally cleared out by means of a probe. Carbolic dressings were applied. Pus flowed intermittingly for more than a month. By April 15, it had ceased to run, and the fistulous opening closed. Some little deformity ensued by retraction of the ribs of the affected side; but the lung has been fast regaining its normal position and function. The child is now apparently as well as ever.—*Medical Record*.

EDITORIALS.

THE ILLINOIS STATE BOARD OF HEALTH.

The report of the State Board contains many points of interest. As nearly as can be ascertained, four hundred diplomas were held in this State by parties who had either bought them directly or obtained them on a nominal examination. The diplomas of nine medical colleges have not been recognized, owing to the fact that the Board has positive knowledge that they sold their diplomas. Nearly all the vilest professional mountebanks and advertising specialists, quacks and abortionists are armed with diplomas, some of them fine specimens of art.

The utmost harmony in action has prevailed, notwithstanding the Board is a mixed one, and there has been a better compliance with the laws than was expected, which now bid fair to go into complete and successful operation.

The charges against Hahnemann Medical College have been carefully considered, and the good standing of the College affirmed.

Under the act to regulate the practice of medicine in Illinois, the State Board of Health is required "to issue certificates to all who shall furnish satisfactory proof of having received diplomas or licenses from legally-chartered medical institutions in good standing." [Sec. 3.] In order to define the term "good standing" used in the law, the State Board of Health adopted, Nov. 15, 1877, the following resolutions:

"Resolved, That on and after July 1, 1878, the Board will not consider any medical school in good standing which holds two graduating courses in one year.

"Resolved, That on and after July 1, 1878, the Board will not recognize the diplomas of any medical school which does not require of its candidates for graduation the actual attendance upon at least two full courses of lectures, with an interval of six months or more."

The position taken by the Board in these resolutions is one which commends itself to all who are striving to make medical education more thorough, more comprehensive and more fully in accord with the progressive spirit of the times. Most medical schools are fully in harmony with the letter and spirit of these resolutions. One or two, who previously held two graduating sessions in the same year, have acknowledged the justice of the position taken by the State Boards of Health and have announced that they will henceforth hold but one regular session per year. One or two more, notably the Eclectic Medical Institute of Cincinnati, cannot see the fitness of the policy of the Board, and announce their determination to stick in the old ruts and hold two graduating courses in one year.

With reference to one of these colleges the Illinois State Board of Health, at the meeting of June 13, adopted the following resolutions:

WHEREAS, The action of the Eclectic Medical Institution of Cincinnati, with regard to giving two full courses of lectures in one year, both of which shall count as such in the said college, in its requirements for graduation; and

WHEREAS, This is a violation of the spirit if not of the letter of the rules of this Board; therefore, be it

Resolved, That, until this question is settled, the Board declines to receive the diplomas granted by the said Institute, under date of June 3, 1879.

Whether the manager of this institution will gracefully yield to the just demands of enlightened public opinion as expressed by the State Board, or whether he will continue to maintain an attitude of belligerence, remains to be seen. In the meantime, it behooves students and preceptors to take note of the existing state of affairs.

LACTOPEPTINE.

The value of pepsin is now generally recognized and its uses well understood; but the most effective mode of administration does not seem to be so clearly comprehended. Pepsin may be so combined and administered as to be wholly inert and worthless, or its action may be greatly enhanced by the use of proper adjuvants. Says Bartholow: "Lactic and chlorhydric (muriatic), acetic, citric and malic acids promote the digestive activity of pepsin. Certain ferments, as ptyaline, pancreatine, extract of malt, etc., also increase its activity." Experience bears witness to the truth of this statement, for it is found that pepsin combined with one or more of these agents does its work more thoroughly and more quickly than when administered alone. The preparation known as lactopeptine, which has been so favorably received by the profession, is probably the best combination of pepsin, with its adjuvants, that has yet been devised.

Sugar of milk, pancreatine, ptyaline, lactic acid and hydrochloric acid are united with pepsin in this preparation, which is peculiarly adapted to relieve indigestion and resultant disorders.

In cholera infantum and summer diarrhoeas, it is often the remedy par excellence, and will greatly assist the action of other remedies that may be indicated.

BOOK NOTICES.

PROF. POTTER'S NEW WORK ON PRACTICE.

This work is having quite a liberal sale, which it justly deserves. The author has been one of the foremost eclectics in this country for nearly forty years. He is a thorough student, close observer, and has given to our profession this work which will serve to light up the dark pathway and point out the "proper way" to many practitioners. The *treatment* laid down, although in many respects original, is nevertheless safe and efficient, and will afford many a useful hint in cases where the routine practice of so many books proves wholly unsatisfactory. Eclectics should express their appreciation of Prof. Potter's labors by purchasing the work. Orders will be filled at the office of the Chicago MEDICAL TIMES. Price, free of postage, \$3.50.

LONG LIFE AND HOW TO REACH IT. By JOSEPH G. RICHARDSON, M. D., Professor of Hygiene, in the University of Pennsylvania, etc.; Philadelphia, Lindsay & Blakiston.

The second in the series of American Health Primers, is devoted to a most interesting subject, and is written in a plain and pleasing style. The work abounds in practical suggestions, timely cautions and sound advice.

Physicians will do good service, in the cause of preventive medicine, by recommending this little volume to their patrons.

ANNUAL PRICE CURRENT (to the trade) Drugs, Chemicals, Medicines, etc. Van Schaack, Stevenson & Co., Wholesale Druggists, 92 and 94 Lake Street, Chicago.

This is the most complete work of the kind ever published; is invaluable to the trade, and reflects great credit upon the enterprising firm by whom it is issued.

THE LAWS OF THERAPEUTICS; OR, THE SCIENCE AND ART OF MEDICINE. By JOSEPH KIDD, M. D., Philadelphia, Lindsay & Blakiston.

The author begins with a concise history of the various medical theories, which have influenced the practice of medicine from the fourteenth century, B. C., to the present day, and then attempts to generalize to reach therapeutic laws. He recognizes the law of *contraria contrariis*, and also of *similia*

similibus, but does not adhere strictly to either, believing that there are still other laws which influence therapeutic action.

THE STEPPING STONE TO HOMŒOPATHY AND HEALTH. By E. H. RUDDOCK, M. D. Licentiate of the Royal College of Physicians, etc., with alterations and additions adapting it to the climate, diseases and customs of Americans, by the American Editor. Chicago: Halsey Brothers, Publishers.

To those of our readers, who desire to investigate the claims of homœopathy, this little work will, perhaps, be more useful than many of the larger publications; that it has passed through eight editions, is evidence of the favor with which it has been received by the followers of Hahnemann.

PRACTICAL INSTRUCTION IN ANIMAL MAGNETISM. By J. P. F. DELENZE; translated by Thomas C. Hartshorn; revised edition. New York: Samuel R. Wells & Co., 737 Broadway.

Many curious minds will doubtless be glad to read an exposition of the mysteries of mesmerism, and to such this volume will be of interest.

Of its merits or demerits, we do not feel qualified to judge.

The author was a French physician, of extensive practice and large attainments.

A CLINICAL TREATISE ON DISEASES OF THE LIVER. By DR. FRIED. THEOD. FRERICHS, Professor of Clinical Medicine in the University of Berlin, etc. Three volumes; Vol. III. Translated by Charles Murchison, M. D., F. R. C. P.; Physician to the London Fever Hospital, etc. New York: William Wood & Co., 27 Great Jones street. 1879.

This is the third volume of the great work of *Frerichs* on the Liver, and the fifth volume of the series of Wood's "Library of Standard Medical Authors." This volume completes *Frerichs*, and is issued in the same neat style as its predecessors. Its contents are:

- 1st. Pathological; New Formations; Hepatic Tumors.
- 2d. Diseases of the Blood Vessels of the Liver; the Hepatic Arteries, Portal Vein and Hepatic Veins.
- 3d. Diseases of the Biliary Passages.
- 4th. Appendix. This is made up of observations and experiments in support of the statements made in the volume.

A complete index is added. *Frerichs* on the Liver was made valuable to the English reader by its able translator Charles Murchison, M. D., LL. D., F. R. S., of London.

SOCIETY MEETINGS.

PROCEEDINGS OF THE NATIONAL ECLECTIC MEDICAL ASSOCIATION.

The tenth meeting of the National Eclectic Medical Association was held in the city of Cleveland, beginning June 18, 1879.

At 10 o'clock, the President, Prof. John King, of Cincinnati, took the chair, and prayer was offered by the Rev. T. M. House, of Christ M. E. Church. The Mayor of the city, Hon. R. R. Herrick, delivered an appropriate address of welcome. He alluded to the fact that several national conventions were in session, and significantly remarked that Cleveland was specially adapted for occasions of this kind. He eulogized the profession of medicine as requiring general and professional knowledge, and complimented the Eclectics for having been public benefactors in this matter. "The school which you represent," said he, "I believe is an outgrowth of the present century, and its doctrines appear to me to be in accordance with the spirit of the age, whose tendency is to break over the old rules and usages which have nothing but age and general acceptance to recommend them, and to assert new ones developed by more recent and scientific research." His Honor concluded by assuring the Association of his best wishes.

President King replied in a few words of acknowledgment gracefully expressed. He then proceeded to deliver his annual address.

"It gives me a thrill of pleasure," said he, "to believe that within the last fifty years the tendencies toward right, justice and liberty have been greatly promoted by the influences arising from the cause we have been and still are maintaining—*Eclecticism*—a system that rejects the false and harmful, and embraces the true and useful. We desire the public to know that we are pledged to no code of ethics that does not concede equal freedom to all, and that is not based upon scientific attainments and gentlemanly conduct—permit-

ting physicians to present themselves before the people in every honorable manner; and that our medical system, in its internal administration, is in truth what it should be in this country—*American* and not monarchical. Ever remember," he said in conclusion, "that the prosperity of this Association and of our State organizations, means prosperity to Eclectic physicians, individually and collectively; while, on the other hand, the subversion of these organizations—more especially through internal dissensions—means disaster and ruin to Eclecticism as well as Eclectic practitioners."

The roll of officers was called, and all proved to be present except Vice Presidents Bundy and A. L. Clark. Fifty-two members were present at this time.

The Secretary read the minutes of the last annual meeting.

Dr. R. S. Newton, of New York, called attention to the fact that no mention had been made of representatives from the Eclectic Medical College of the city of New York. The Secretary explained that he had never seen any such credentials, as, at that session, every delegate had carried his papers directly to the committee, without submitting them to the Association by due presentation. It had given opportunity for several irregularities, and it was to be desired that this course would not again be repeated. The journal was then approved.

On motion of Dr. A. J. Howe, the following Committee on Credentials was appointed: Drs. Younkin, of Missouri, McLaughlin, of Ohio, Green, of Massachusetts, Durgan, of New York, and Mulholand, of Pennsylvania.

Dr. A. Merrell, of Missouri, having made a report from the Committee on Pure Medicines, and recommended a standing committee of five to prepare a pharmacopœia, a resolution was adopted creating this same committee for that purpose. The names of the committee are as follows:

Dr. A. Merrell, of St. Louis; F. J. Locke, of Newport, Ky.; A. L. Clark, of Chicago; S. B. Munn, of Waterbury, Conn., and C. E. Miles, of Boston.

The discussion of the report was continued till recess, and resumed in the afternoon. Drs. Howe, Newton and Merrell were the principal speakers.

On motion of Dr. A. Thompson, of Pennsylvania, *Resolved*, That this Association adopt the *American Dispensatory* as its standard authority.

On motion of Dr. J. M. Scudder, the report of the committee, *in extenso*, was also adopted.

The Committee on Credentials reported favorably the names of twenty-eight delegates, recommending them for permanent members, as follows: L. E. Russell, Springfield, Ohio; Charles N. Potts, Newbury, Ohio; C. C. Blanchard, Duvalin, Wis.; Henry Olin, Chicago, Ill.; W. P. Madden, Ohio; W. T. Grimmell, Ohio; R. W. Sharp, Ohio; N. G. Smith, Indiana; J. B. Shultz, Indiana; J. Jeanson, Kentucky; H. A. Bolles, New York; C. F. Lounsbury, New Jersey; A. J. Marston, Massachusetts; C. H. Bostick, Michigan; J. Milton Welsh, Kansas; A. H. Eidson, Kansas; Perry W. Welker, Pennsylvania; S. Schiller, Ohio; George W. Winterburn, New York; Orin Davis, Utica, N. Y.; J. J. Sharp, Tuscarora, N. Y.; James Davidson, Alliance, Ohio.

C. B. White, Austintown, Ohio; J. H. Converse, West Troy, N. Y.; P. D. Flower, Pennsylvania; W. S. Flower, Pennsylvania, and W. S. Springsteen, Nevada, were reported favorably by the Committee on Credentials, and the gentlemen were elected members of the Convention.

Report on States.—Dr. V. A. Baker reported upon the status of Eclectic Medicine in Michigan; Dr. W. S. Latta upon Nebraska; Dr. J. V. Lewis upon Ohio; Dr. J. M. Welch upon Kansas; Dr. B. L. Yeagley upon Pennsylvania.

The tenor of these reports indicated a favorable and improving state of affairs, and gave interesting particulars of the effort in Nebraska and Michigan to secure Eclectic professorships in the State Universities, and the lively struggle in Pennsylvania to procure the withholding of legislative appropriations from the State University and Jefferson Medical College—both which reject Homœopathic and Eclectic physicians from all favor and just consideration.

Dr. Anton subsequently moved a vote of thanks to the Eclectics of these States for their noble and vigorous efforts, which was adopted.

Special Reports.—The President announced the next order to be the reception of special reports. The rule for this purpose, which is often overlooked, is as follows :

“ Art. IX, § 6. Reception of papers *by title*. It shall, however, be in order, when no other business is before the Association, to read any such paper and discuss the subject of which it treats.”

Dr. V. A. Baker, of Michigan, made a report on *Typhoid Fever*, which elicited discussion. Several papers were submitted by title. The paper of Dr. Baker was then taken up by the Convention and discussed at some length by Drs. Henry Olin, Chicago, Alexander Thompson, of Pennsylvania, Milton Jay, of Chicago, Wilson H. Davis, of Chicago, and others.

The Missouri Question.—The Committee on Credentials reported several more names favorably for permanent membership, all of which, on motion of Dr. Scudder, were accepted.

The committee reported adversely to Drs. G. H. Field and J. H. Hole, as delegates from the Missouri Eclectic Medical Association.

It should be remarked, in connection with this fact, that Dr. Younkin had been excused, on his own motion, from participation in this action, and Dr. S. B. Munn placed on the committee for the time.

Dr. M. L. Filkins, of New York, raised the point that the Association, at its last annual meeting, had recognized the Missouri Association, and that the action proposed by the committee would leave that body unrepresented.

The President overruled the point, remarking that Dr. Field had been expelled from this Association, and that the attempt of the Missouri organization to foist him upon them in this sinister manner was a deliberate insult. The report was then adopted.

Dr. Borland read a paper giving an account of the effort of the Eclectic Medical Association of Pennsylvania to secure legislation to give Eclectics an equal footing before the law. Other papers were read by title.

Charge against Dr. Filkins.—Dr. A. J. Howe displayed a circular headed, “ Dr. Filkins Bros’. Prescriptions! For

all Chronic Affections." On the second page was the paragraph:

"Dr. Filkins Bros. are graduates and have diplomas from the Eclectic Medical College of the city of New York, Albany Eclectic Medical Association, Eclectic Medical Association of the State of New York, and National Eclectic Medical Association of the United States. If a physician can cure ills that flesh is heir to, it is written in the book of Human Rights that he may practice in any country he pleases, it makes no difference what school of medicine he is of."

Dr. Howe then presented a formal charge against Dr. Filkins for having issued circulars of an unprofessional and bombastic character, tending to bring the Association and Eclectic practice into disrepute, and violating the letter and purpose of Article III of the By-Laws.

The matter was referred to the Committee on Credentials. Dr. Munn, as Acting Chairman, soon after made the following report:

"We, the Committee on Credentials, upon examination of the charges against Morgan L. Filkins, M. D., by A. J. Howe, M. D., on the practice of advertising in a bold and bombastic manner, do find M. L. Filkins guilty of said charge, in the grossest manner, and in a way altogether unworthy of an honest professional conduct, and in violation of the laws of this Association."

The consideration of the report was deferred till the evening session, at Dr. Filkins' request.

The remainder of the afternoon was devoted to papers and reports.

Dr. S. B. Munn made a report on *State Legislation in Medicine*, reciting the endeavors in various ways to restrict Reformed Practitioners, and urging that the friends of humanity should be very careful not to abridge the rights of the people. He had no apology to offer for medical tramps, nor sympathy for them, nor did he know why he should have any special regard for the arrogance, intolerance, bigotry and ignorance of the so-called *regular* practitioners. "We demand the protection of the law in doing right. Nor do we propose to

abandon our demands till the laws of our country, its usages, benefits and privileges, shall be ours with impartiality."

Dr. J. M. Hole read a paper on *Medical Hygiene*; Dr. J. W. Kermott, on *Diseases of Michigan and Canada*; and Dr. Kunze, of New York, on *Stimulants*, recommending their use in fevers, etc. Drs. Olin, Jay, Howe and others, discussed the last paper till the recess.

EVENING SESSION.

The Secretary read a communication from the Eclectic Medical Association of Ohio, asking the enactment of a rule directing the Executive Committee to publish the name of every person advertising or falsely representing that he is a graduate of an Eclectic college or medical society, with the facts pertaining to the statement.

Dr. Anton explained that Ohio had been infested for years by advertising quacks and other vermin, who blazoned the tale of being graduates or members of Eclectic societies, and made it very difficult for respectable practitioners to shake them off.

Drs. Munn, Piper, Pitzer, Green and others expressed their hearty concurrence with the purpose and prayer of the petition. On motion of Dr. Wilder, it was referred, and Drs. Anton, Piper and Green were appointed a committee, with instructions to report in the morning.

Dr. Filkins.—The President announced the special order. Dr. Filkins denied the imputation of quackery and charlatan-ism. He acknowledged the publishing of the offending circular, but pleaded that he did it not in violation of the by-law of the Association. He had advertised remedies which were genuine; had been thirty years so employed, and paid over \$20,000 to the Government for the privilege of manufacturing and vending them. His remedies were not secret. He had earned his position by hard and laudable work; he had only exercised his rights as a citizen, and he would leave his case with the Association.

Dr. Orin Davis asked—Would Dr. Filkins withdraw all mention of the Association from his circulars?

Dr. Filkins—"Certainly, that is my intention."

Dr. Pitzer, of Missouri, declared himself strongly opposed to any mercy in the case. The accused had been guilty of unprofessional and ungentlemanly conduct, and nothing short of his expulsion would satisfy him.

Dr. R. S. Newton, of New York, would not defend Dr. Filkins; he was abundantly able to do that for himself. But was it well to resort to extreme measures in this case? Dr. F. had been an earnest and active laborer in the ranks, and what is more, had meant no wrong. The genuineness of his advertisements is not questioned. The offense consisted in publishing any advertisement at all. Dr. Filkins had distinctly stated that he had sinned, not knowing that he had violated any by-law, and such an offense, he pleaded, is not culpable.

Dr. Wilder said that this rather placed the men of New York in a position of great delicacy. The by-law of the Association had been carefully prepared and considered, and he would not bate a tittle of its stringency, but add to it. He had felt dishonored in such matters very keenly. The Eclectic school had been made the receptacle of vileness by charlatans of every hue. He had himself held aloof for long years from Eclectic association on account of this lack of regard for professional honor. He was, he believed, older as an Eclectic than any other one in the hall, but, for this reason, he had long disused the designation. Yet he was a Republican, and believed in the fullest rights of every one to do as he pleased, if his actions injured no one. He had known the accused for twenty-five years, and could recite his career for that time. He had, unaided, raised himself from poverty and illiteracy to be what he had become. He was, from the first, a politician, and, the speaker believed, an honest one. He had twice been a member of the Legislature, was on intimate terms with the leading men of the State and nation, had served nobly in the army, and held, under President Grant, the office of Postmaster at Albany, where he made enemies by his exposure of dishonesties. He had been an efficient worker at the State capital, to ward off partisan medical legislation. The matter was

now before the Association. There was the rule, and they were to maintain it. The article stands for itself, and the man stands for himself.

Dr. Younkin, of Missouri, pleaded against allowing sympathy to influence their action. It would be wrong to their brethren, and wrong to the public. The accused was a man of more than ordinary intelligence, of great influence, a fluent speaker, and had powerful friends. He was guilty; let him suffer the penalty.

Dr. Mulholand denounced advertising, and protested that he would not remain where it was tolerated.

Dr. Munn said that the Association was not fighting men but systems, and this advertising had no redeeming feature.

Dr. Howe did not expect that the matter would have received so much discussion, and referred particularly to the attitude of the members from New York. He had brought the matter forward because he believed it his duty, and he would do the same in future.

Dr. O. Davis, of New York, denounced the proposed action as arbitrary. They all advertised; this meeting was itself an advertisement.

Dr. Jay, of Illinois, remarked that it was not easy to draw the line; and some things said would have better been left unsaid; but there was a by-law, and they should live up to it.

Dr. Scudder proposed that leave be granted the accused to withdraw from the Association. It was not the case of one man, but the absolute question of right or wrong—whether or no they would allow advertising of this character.

Dr. Filkins again appealed to the Association not to act from prejudice.

A motion to lay on the table was lost by a decisive majority.

Dr. Pitzer moved the adoption of the report, which was carried.

Dr. Newton moved that Dr. Filkins be permitted to withdraw.

Dr. — moved that he be expelled.

Dr. Wilder protested that it was unparliamentary and opposed to every usage of civilized communities, to accuse a

man, try him, sentence and execute him on the spot. The accused had the right to time.* This was not the court of Jeffries and the Bloody Assize, but the National Eclectic Medical Association.

Articles III and IV of the By-Laws were read, and, after further discussion, the Association adjourned till morning.

THURSDAY MORNING SESSION.

Rev. Dr. Horn offered prayer. The Secretary read a letter from Dr. Charles Band, of Nebraska, inclosing a check for \$75, to be used for the purposes of the Association. The gift was accepted with thanks, and the Secretary directed to address a letter of acknowledgment.

Dr. Scudder offered the following resolution :

“Resolved, That this Association recognize the following Eclectic Colleges as being in good standing, and recommend that they receive the support of the profession :

“The Eclectic Medical Institute, of Cincinnati.

“The American Medical College, of St. Louis.

“The Eclectic Medical College, of the City of New York.

“The Bennett Medical College, of Chicago.

“The United States Medical College, of New York.

“That we approve the courses of instruction adopted, and especially recommend to students a graded course of three years, or an attendance upon three or more courses of lectures.”

Dr. Henry Olin, of Chicago, thought that the Colleges mentioned should regulate their course of instruction, so that it would be as high as other Colleges, and so that the Medical Boards of the different States would not throw out the diploma of any Eclectic College, as had been done by the State Medical Board of Illinois, in the case of the Eclectic Medical Institute, of Cincinnati.

Dr. Jay spoke in opposition. Dr. McMaster moved to table the resolution for the present. Lost; ayes 28, noes 30.

The question was taken, and the resolution was adopted without a dissenting vote.

*Dr. Filkins himself waived this point, consenting to join issue at once. The point here made was, therefore, “not well taken.”

Dr. McMaster, of Michigan, offered an amendment to Article V of the By-Laws, relating to qualifications for graduation, as follows :

"Medical colleges in good standing with this Association shall require that each and every candidate shall be twenty-one years of age, and have pursued the study of medicine for three years under the supervision of reputable physicians, or in a reputable medical college, and have attended at least two full terms of instruction of five months' duration, with an interval of five months, the last of which shall have been in the college conferring the degree." Adopted.

Dr. Anton reported the following amendment from the committee appointed the previous evening : "That Article III of the By-Laws be amended by adding the following :

"While it is the undoubted right of every physician to present himself before the public in an honorable manner, and to state that he makes a specialty of any particular disease, no member of this Association shall advertise himself by hand-bills, circulars, publications of certificates of cases, or any such means, nor associate himself in business professionally with any one so doing, nor advertise himself as belonging to this Association, or any auxiliary society, or medical college. Any member knowing of any violation of this provision by members of this Association, or any person not a member of this Association or any auxiliary society, advertising himself as such, shall inform the Executive Committee of the matter, together with all the facts in his possession ; and it shall be the duty of said committee to publish the facts in some public journal circulating in the region where such offense has been committed."

Adopted ; ayes 50, noes none.

Dr. Jeancon, of Kentucky, read a paper on the *Lymphatic Glands*, illustrating his subject with charts.

The Committee on Credentials reported that Dr. C. W. Hanson, a delegate from California, had paid his initiation fee, but neither his credentials nor money had come into their hands. Dr. Hanson was, by motion, admitted to membership. A recess was then taken.

AFTERNOON SESSION.

Dr. Scudder being announced for a *History of Eclectic Medicine*, presented it in print, without reading. It was made the special order for half-past 3.

Dr. Parker, of Ohio, exhibited a heart taken from the body of a woman in which a burdock-burr had been imbedded. Dr. Olin, of Illinois, gave the opinion that the burr had been inhaled into the lungs, and passed thence to the heart through the tissues by ulceration, and that the exudation of lymph around it had caused it to become encysted.

Dr. R. S. Newton, of New York, made a verbal report from the Bureau of Correspondence. He stated that President Hayes had assured him that there was no objection whatever to the appointment of Eclectic physicians to office, but that since his accession, no application had ever been made.

Officers for 1879-80.—The Electoral Committee from the States and Medical Colleges, which had been appointed during the recess, pursuant to Article VI of the By-Laws, reported the selection of the following officers for 1879-80:

President—Milbrey Green, M. D., of Boston, Mass.

First Vice President—John B. Schultz, M. D., Logansport, Ind.

Second Vice President—Albert G. Springsteen, M. D., Cleveland, Ohio.

Third Vice President—Henry B. Piper, of Tyrone, Penn.

Secretary—Alexander Wilder, M. D.

Treasurer—James Anton, M. D.

The vote on the next place of meeting was divided between Buffalo, Chicago and St. Louis. The Association made choice of Chicago.

The Committee on Credentials reported in favor of granting the prayer of the petition of the Missouri Eclectic Medical Society, to admit that body as an auxiliary of this Association, as alone duly representing the Eclectics of that State.

The report was adopted, thus reversing the action taken in the matter in 1878.

Dr. Filkins Expelled.—Dr. Yost, of Missouri, offered the following resolution :

“ *Whereas*, Dr. M. L. Filkins, of Albany, N. Y., having been found guilty of improper advertising, and having been allowed to withdraw, he failed to comply with this modest request, therefore, be it

“ *Resolved*, That said Dr. Filkins be expelled from the Association.”

Dr. McMaster, of Michigan, moved that this resolution lie on the table for one year.

Dr. S. B. Munn was permitted to explain that Dr. Filkins had declared his purpose to disregard the wishes of the Association, and to maintain a controversy with it; and he thought that, such being the case, the best way was to dispose of the matter at once.

Dr. McMaster's motion was lost, the question taken, and Dr. Filkins expelled; ayes 39.

Papers were read from Dr. Merrell, on *Late Improvements in Pharmacy*, and Dr. Olin, on *Diseases of the Cornea*.

On motion of Dr. McMaster, the Constitution was amended, fixing the third Wednesday of June as the period for holding the annual meeting.

Dr. Filkins appeared in the hall, and demanded from the Association whether he had been expelled. The President replied in the affirmative. Dr. Filkins denounced the action as illegal, wicked and unjust, and announced his purpose to contest it at a proper time.

Bureau of Electricity.—On motion of Dr. J. D. Kergan, of Michigan, a Bureau of Electricity was created, and the following persons appointed: Drs. Kergan, Kent, of Missouri, and Bolles, of Cortland, N. Y.

A recess was taken until evening.

EVENING SESSION.

The Association upon convening proceeded to the installation of the new officers. Vice Presidents Shultz and Piper were absent.

The President announced the following Committee of Correspondence on locations for Eclectic physicians: Dr. John M. Scudder, of Cincinnati, Ohio; R. A. Gunn, 102 East Twenty-third street, New York City; B. L. Yeagley, of Johnstown, Penn.; W. S. Latta, of Lincoln, Neb.; C. E. Miles, 126 Warren street, Boston, Mass.

Dr. R. S. Newton, Jr., of New York, gave an account of his observations in Europe.

Dr. Orin Davis read a paper on the *Art and Dress of Culture*.

Dr. Lewis offered a resolution to rescind the resolutions adopted at Detroit, June 18, 1878, in relation to the procuring of bodies for dissection. After a brief debate it was adopted.

On motion of Dr. John King, a resolution was adopted fixing the future sessions of this Association at three days, and amending the By-Laws to that effect. Adjourned till 9 o'clock, A. M.

FRIDAY MORNING SESSION.

Thirty-one members were present at the session of Friday.

The members of the Committee on Credentials having left the Association, the following new committee was appointed: Drs. S. B. Munn, John King, G. W. Winterborn.

On motion of Dr. Anton, 1,000 copies of the Constitution and By-Laws of the Association, as amended, were ordered to be printed.

On motion of Dr. Wilder, "*Resolved*, That this Association take this occasion to express its consideration of the debt of gratitude to Dr. Long, of Georgia, the discoverer of anæsthesia, and agree to unite in any public endeavor to do honor to his memory."

Dr. Newton recommended the appointment of a stenographer at future meetings, to report in full the discussions, that they may appear in future volumes of *Transactions*; declaring that such reports would make the volumes the most valuable that are printed.

Dr. Newton offered a resolution criticising members who had remained in attendance only till their particular aims had been accomplished.

Dr. King moved to amend by the request to all State and other auxiliary societies, to receive only such delegates as will attend the meetings and remain till the business is transacted. The amendment was accepted and the resolution adopted.

The Committee on Credentials reported favorably the names of fourteen delegates, recommending them for permanent members. The report was accepted, and the members duly elected. This makes forty-five in all—the same as last year.

Dr. Shaw, of Michigan, presented a clinical case, a young man injured in the foot. Dr. R. S. Newton, Jr., examined the case and delivered an opinion; also Drs. Munn, Jewett and Anton.

Dr. J. V. Lewis reported a case of cancer.

Dr. Russell, of Ohio, reported a case of spasmodic contraction of the muscles of the neck, which he treated by cutting them. Dr. Newton approved this measure.

Dr. Lewis reported a case of blood-poisoning with symptoms pronounced by other physicians hysteria. He spoke of the vagaries of this designation; he considered the organic nervous system involved.

Dr. Newton followed, referring to the brain and life-line. Dr. Welch, of Kansas, declared that he had found no benefit in the study of life-line. Several other clinical cases were presented and discussed.

Recess till afternoon.

AFTERNOON SESSION

The clinics were renewed, and several patients examined.

Dr. Stow, of New York, mentioned that copies of the five volumes of *Transactions* had been presented at the French Exposition, and flatteringly noticed.

On motion of Dr. Borland, thanks were returned to Drs. Stow and Wilder, for their attention to this matter.

The Secretary was directed to bind all volumes of the *Transactions*, and to exchange bound copies of Vol. VI for pamphlets, where the members having them pay expenses.

Dr. Stratford offered a resolution setting apart the first day of future sessions to education, and the second to legislation, and the third to the election of officers, etc. Referred to the Executive Committee.

Dr. Jewett moved to rescind the vote fixing the next meeting at Chicago, and directing it to be held in Nebraska.

On motion of Dr. McMaster, the resolution was tabled.

At 4 o'clock, the President declared the Association adjourned till June 17, 1880.

MASSACHUSETTS ECLECTIC MEDICAL SOCIETY.

The annual meeting of this Society was held at the Revere House, Boston, June 5 and 6, the President, Dr. Milbrey Green, in the Chair. There was a large attendance, and several new members were admitted. The finances are in excellent condition. The following officers were elected for the ensuing year: President, E. E. Spencer, of Cambridgeport; Vice President, John Perrins, of Boston; Corresponding Secretary, F. L. Gerald, of Hyde Park; Recording Secretary, A. L. Chase, of Randolph; Treasurer, J. W. Towne, of Charlestown; Librarian, J. D. Mason, of Boston; Councilors, C. Lloyd, A. W. Sidney, N. Jewett, G. H. Mirkell, J. M. Aldrich. An excellent essay was read by Dr. J. P. Bills, of Dorchester, on Dyspepsia, which called forth an animated discussion.

At the afternoon session, Thursday, the new President took the chair. Essays were read by Dr. R. W. Geddes, of Winchendon, on "The True System of Medicine," and by Dr. F. L. Gerald, of Hyde Park, on "Direct and Specific Medication," both of which were able papers, and led to profitable discussion.

Friday morning, an essay was read by Dr. J. B. M. Dickens, of Newburyport, on "Pulmonary Emphysema," and its special treatment; also by Dr. C. Lloyd, on the subject of "Diphtheria," who discussed at considerable length the various theories of the cause of this disease from various authors. A committee, consisting of Drs. C. E. Miles, H. W. Buxton

and J. M. Aldrich, reported the following resolutions on the death of Dr. William E. Underwood, of Boston, which were unanimously adopted by a rising vote:

Whereas, We recognize in the decease of our associate, friend and former President, William E. Underwood, M. D., a loss that fell heavily upon us and his family, therefore be it

Resolved, That we owe a heartfelt tribute to his memory and virtues, and we mourn him as a man of high sense of honor, rare courage to follow his convictions of right, and a physician ever kind, faithful, sympathetic, and thoroughly skilled in the healing art.

Resolved, That we deeply sympathize with those bound to the deceased by the dearest ties, and share with them the hope that he rests from his earthly labors only to enjoy the fruitions of the good.

Resolved, That a copy of these resolutions be transmitted to the family of the deceased, and that they be spread upon the records of this Society.

After the transaction of some routine business, at 1 o'clock, Dr. J. S. Andrews, the orator of the day, delivered the annual address. His subject was, "Physiological Psychology." It was a carefully prepared and thoughtful paper, in which the speaker endeavored to show the various functions of the mind, and its relations to the nervous system.

At 2 o'clock, the members, with a few invited guests, sat down to their annual dinner, which was an elegant affair. After an hour had been spent in doing full justice to the good things prepared by mine host of the Revere, the company was again called to order by the Anniversary Chairman, Dr. Aldrich, who introduced as the first speaker, the President elect, Dr. Spencer, who made a brief and sensible address. The retiring President, Dr. Milbrey Green, of the Highlands, was called out in response to the sentiment, "The Scientific Method—Applicable alike to the Medical as to the Physical and Natural Sciences." Medicine, said the speaker, is a science, and a scientific method is the only one that should be followed in treating diseases. An accurate diagnosis, based upon a correct pathology, should always be the foundation of medical treatment. The laws of disease are as definite as those of health, and the physician should make himself as familiar as possible with both. In dealing with so complex a mechanism as man, it is impossible to avoid errors; but the

more closely the physician studies the laws of health and disease, and uses all the means the wondrous instruments for diagnosis bring within his reach, the more accurate and successful will be his diagnosis, and the more successful his treatment. Every year brings us something new in instruments for diagnosis. Conditions can be more closely tested and watched than ever before. The speaker then referred to several of the valuable aids in making a diagnosis, and in closing remarked, "The true physician is always a student, and the study of medicine ends only with his life. But the hardest lesson for him to learn is that of patience. He should emulate the example of students in physical and natural sciences; and observe closely and patiently." The speaker concluded by expressing the belief that a direct or scientific medication is as applicable as specific diagnosis, and that the only method followed by physicians should be, in all cases, a scientific one—a specific diagnosis and a specific medication.

Mr. S. T. Cobb was called upon to respond to a sentiment to the press, and he argued that the press should be conducted on the "eclectic" principle. The theory of eclecticism precludes the existence of bigotry and intolerance among the profession, and the handful of conscientious eclectic physicians have done more than can be told to broaden the views and enhance the usefulness of the medical fraternity at large.

An original poem was read by Dr. Darling, after which Rev. M. J. Savage was called up to respond for the clergy, which he did in an eloquent manner. He was frequently interrupted by the enthusiastic applause of the doctors, who appeared to admire his bold, manly, straightforward way of expressing himself, even though they might not agree with all his sentiments.

Addresses were also made by Drs. A. L. Chase, Andrews and C. E. Miles.

At the close of the speaking, and after the transaction of some routine business, the Convention adjourned. At the subsequent meeting of the Executive Committee, Dr. Milbrey Green was elected orator at the next annual meeting, and Dr. Seth C. Ames, Anniversary Chairman.

The next semi-annual meeting is to be held at the Revere House, Boston, Jan. 14, 1880. The next annual meeting June 3 and 4, 1880, at the same place.

A. L. CHASE, Secretary.

TRANSACTIONS OF THE CENTRAL MEDICAL SOCIETY OF PENNSYLVANIA—SESSION OF 1879.

The Fourth Annual Meeting of the Central Medical Society was held at Altoona, on Wednesday, May 28, 1879.

Pursuant to call of the Executive Committee, the Society convened at 10 o'clock, A. M., and was called to order by the President, L. T. Beam, and a quorum being present, the minutes of the previous meeting were read and approved.

The application of James M. Bunn, M. D., of New Washington, Clearfield County, Penn., for membership, was presented by letter from H. F. Beam, M. D., of Curwinsville.

It was moved and carried that a committee of three be appointed by the chair to act as a Board of Censors, to whom should be referred all applications for membership at this meeting. To report at next meeting. The following were the Committee of Censors appointed by the chair:

C. M. Ewing, M. D., Tyrone, Penn.; T. M. Bulick, M. D., Altoona, Penn.; A. Yeagley, M. D., Johnstown, Penn.

The reports of the Secretary and Treasurer were presented and approved.

Dr. H. B. Piper, from Committee on Legislation, in State Society, by request of the President, delivered an extemporaneous address on the relations of the medical profession to the State. He gave a synopsis of the labors and success of the State Committee, and urged the necessity of all district societies giving more attention to the important subject of State medicine. His earnest and forcible manner, and the thorough comprehension of the subject, in all its details, displayed by him, served to center a very profound interest in his remarks. At the conclusion of his address, an unanimous vote of thanks was accorded him.

The reports of cases in practice being called for, Dr. Andrew McCready, of Martinsville, Penn., detailed an interesting case of CARCINOMA; the remedies used, indicated; successfully treated. Discussion upon the case followed, and was participated in by quite a number of gentlemen, with much interest.

Dr. Andrew Yeagley presented a case of Chorea, which involved many anomalous and peculiar symptoms, and which called forth a lively discussion.

Dr. H. B. Piper presented a case of Lupus, located upon the face, close to the nose. Also, a case of Schirrous Tumor, upon the cheek, which was under treatment, with fair prospects of a successful issue. Also, a case of Hare Lip.

A communication from Dr. D. A. Arter, of Greensburg, Penn., was read by the Corresponding Secretary, and approved.

On motion, adjourned till 1:30 P. M.

AFTERNOON SESSION.

The association was called to order by the President, at 1:30 P. M.

Dr. C. M. Ewing reported a case of Procidencia. He spoke at some length upon the peculiarities of the case, delineating the treatment pursued, and the successful result therefrom.

Dr. T. M. Bulick introduced the subject of Neuralgia, giving in illustration of his subject a synopsis of several cases occurring in his practice, with the remedies having the most direct action, and a lengthy discussion followed upon the subject.

President Dr. L. T. Beam, reported a case of Uterine Hydatids, with treatment both precedent and subsequent. Remarks on the subject were made by Dr. B. L. Yeagley, Dr. H. B. Piper, and others.

Dr. B. L. Yeagley made a special report on the antiseptic treatment in surgery, which was ordered to be communicated to the medical press.

Dr. Geo. E. Potter then read an able essay on the Physical Improvement of Humanity. The paper was prepared with care, evincing much thought, and was received with that interest and attention its merits deserved, and for which the thanks of the association were voted him.

The annual address was delivered by the President, Dr. L. T. Beam, of Johnstown, Penn., subject: "Medical Societies—A Plea for their more thorough Organization, their Objects and Relation to State Medicine."

On motion, it was resolved that the President be requested to communicate his address to the public press.

The Society gave proof of its interest, in the subject presented in the annual address, by establishing a standing committee on organization and State medicine, viz., L. T. Beam, H. B. Piper and T. M. Bulick.

The President called up the subject of proposed legislation, establishing a State, County and Municipal Board of Health, and to regulate the practice of medicine in this State.

Discussion ensued on the subject, and the general impression expressed was, that we needed not only better laws to regulate the practice of medicine and surgery, but that sanitary legislation should be greatly enlarged and improved.

As expressive of the sense of the Society the following preamble and resolution was adopted:

WHEREAS, This is in favor of any and all legislative measures for the protection of the public health, and for the better regulation of the practice of medicine in this State; therefore,

Resolved, That it be placed upon the record of this Society's proceeding, that it will strike hands with all good men and measures bearing equally and justly upon the various medical schools, and that have for their objects the elevation of the standard of medical attainments, the protection of the public health, and the protection of the community from medical imposition and incompetency; but that this Society does and shall utterly deprecate any legislation discriminating in the interest of any one school of medicine; it will oppose the establishment of a *caste* in State medicine; it desires that all classes of physicians enjoy equal rights before the law.

The committee appointed at the last meeting to revise the Constitution and By-Laws, presented their report, which was adopted and ordered printed.

The following officers were elected for the ensuing year: President, J. D. Evans, Latrobe; Vice President, D. A. Arter,

Greensburg; Recording Secretary, H. F. Beam, Curwinsville; Corresponding Secretary, E. J. Kirk, Bellefonte; Treasurer, T. M. Bulick, Altoona.

On motion, Bellefonte was selected as the place for the next semi-annual meeting to be convened in October at call of the Executive Committee.

Resolved, That a vote of thanks be tendered to Dr. T. M. Bulick, for favors shown the Society.

On motion, the meeting adjourned.

B. L. YEAGLEY, *Secretary*.

DOINGS OF THE MICHIGAN ECLECTIC MEDICAL SOCIETY.

The meeting of the State Eclectic Medical and Surgical Society at Niles, May 28 and 29, 1879, was a success in every respect, although the attendance was not as large as some had hoped to see. Some twenty-five members were present: President P. W. Reed, of Port Huron, presided.

The meeting was opened with prayer by the Rev. G. S. Bailey, D. D., of Niles, and was welcomed to the city of Niles by Mayor Krick in a neat little speech.

There were nine formal applications for membership, with four or five that were more or less informal, and not entertained. There were seven new members elected, as follows: C. H. Bostick, New Troy; R. C. Ely, Medina; S. Rowe, Lawrence; A. J. Dispennett, Royalton; A. G. Hopkins, Newburg; T. L. Blakely, Newburg; J. D. Kergan, Detroit; Dr. E. A. Curtis, a former member, having removed into the State, on application was restored to active membership. Dr. W. S. Springsteen, of Wadsworth, Nev., was elected to honorary membership. Three active members removed from the State were placed on the honorary list. These were Drs. E. S. Stebbins, George Holbrook and C. D. Harmon, leaving the membership of the Society at the close of the meeting, fifty-two active and eleven honorary.

The President's address and several original papers read, with the discussions they elicited, were interesting features.

On motion, the Wayne County Eclectic Medical and Surgical Society was accepted as auxiliary to the State Society.

Numerous reports of officers and committees were received, also reports of cases by members. The Committee on Legislation reported progress, and more time was given it, together with a vote of thanks.

The following officers were elected for the ensuing year, or hold over, as in the case of the Censors for one year :

President—P. W. Reed, Port Huron.

First Vice President—L. A. Howard, Litchfield.

Second Vice President—I. R. Dunning, Benton Harbor.

Third Vice President—E. Blackman, Quincy.

Secretary two years—H. S. McMaster, Dowagiac.

Treasurer—E. M. Shaw, Allen.

Censors for one year—L. E. Wickens, Holly; E. M. Shaw, Allen; W. N. Keeler, Concord.

Censors for two years—H. L. Baker, Blissfield; J. D. Kergan, Detroit; R. Winans, Benton Harbor.

The following were elected delegates to the National Eclectic Medical Association, which will meet in Cleveland, Ohio, on Wednesday, June 18, for a three days' session: V. A. Baker, J. D. Kergan, P. W. Reed, H. L. Baker, E. Blackman, L. A. Howard, E. M. Shaw, R. Winans, S. Rowe, A. Conklin, C. H. Bostick, W. B. Church, H. S. McMaster, R. C. Ely and L. E. Wickens.

Detroit was chosen for the next place of meeting and the last Wednesday in May the time. H. S. McMASTER, *Sec.*

IOWA STATE ECLECTIC MEDICAL SOCIETY.

The twelfth annual meeting of the Iowa State Eclectic Medical Society was held in the city of Des Moines on the 4th and 5th of June. The meeting was unusually large and interesting. Several new members were elected, and a number of very interesting papers read and discussed. The routine business of the Society was finished up in good shape.

O. H. P. Shoemaker, M. D., of Avoca, was appointed to publish the transactions of the Society from its organization to

the present time. Members are requested to furnish papers in their possession as early as possible, in order to prevent delay. The following officers were elected for the ensuing year: President, E. D. Wiley, M. D., of Des Moines; Vice President, J. A. Reid, M. D., of Davenport; Recording Secretary, Watson Roberts, M. D., of Marshalltown; Treasurer, C. B. Powell, M. D., of Russell; Corresponding Secretary, J. A. McKloveen, M. D., of Chariton. This Society will hold its next annual meeting at Des Moines, commencing on the second Wednesday in June, 1880.

J. A. MCKLOVEEN, *Corresponding Secretary.*

THE Volta Electric Belt comes indorsed by high scientific authority as an apparatus for generating the direct continuous galvanic current of an intensity and strength which does not vary for ten or twelve hours. There is no longer doubt that the application of such a current for hours at a time is productive of decided reliable and permanent therapeutic effects, and for that purpose the Volta Electric Belt is offered to the medical profession.

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THE

Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[XXVII.]

SPECIFIC MEDICATION.

BY HENRY G. GABEL, M. D., AURORA, ILL.

An English traveler in the Fiji Islands once observed one of the chiefs of the island ascending a mountain path with a long line of people following him in single file. The chief happened to stumble and fall, when immediately every man in the long procession, *except one*, stumbled also, and lay flat upon the ground; when the chief arose, they all arose likewise, and fell upon the dissenting or neglectful member who dared to deviate from the sacred custom of the tribe, and beat him to death with their clubs.

This incident is a picture of the law of evolution which runs through the entire philosophy of history. All of us are aware how hard it is for the savage to accustom himself to labor and regular habits, and thus fit himself for concerted action with his fellow-man.

We also know that with political freedom, advancing civilization is inevitable. Free discussion ensues; thought is excited; error detected; truth elicited, and all are finally benefited by the conflict between the radical and conservative elements of the human mind. This is as true in medicine as in politics or religion. Says a great thinker, "One of the greatest pains of human nature is the pain of a new idea. It

is, as common people say, 'so upsetting.' It makes you think that, after all, your favorite notion may be wrong, your firmest belief ill-founded. Naturally, therefore, common men hate a new idea, and are disposed more or less to ill-treat the man who brings it."

"The science of medicine," says Sir Astley Cooper, "is founded on conjecture." Sir Thomas Watson says, "Our profession is continually floating on a sea of doubts about questions of the gravest importance."

When such thoughts are expressed by the great independent thinkers of the world, it should make every intelligent and conscientious physician ask himself how far his own conduct and opinion has contributed to this pitiable condition of the profession.

Magendie says, "Medicine is not a science; we are collecting facts, and perhaps in a century there may be a science."

Are we then, as the Eclectic branch of the medical profession, collecting facts in regard to the theory of Specific Medication which may, even in a century, give us a medical science, or, in other words, a rational practice of medicine? When we look about us in nature, we find this universal law, "Like causes always produce like effects." Even in some of the branches of medicine, we recognize this law; as in botany, chemistry, anatomy, physiology, pathology, surgery and obstetrics. Can we say as much for therapeutics? I think not. Is this branch, then, an exception to this great law? Certainly not; but it is so imperfectly understood that we may at times think that it is an exception.

However, if we have certain conditions which are alike in two or more persons, and we find an agent or remedy which removes these conditions in one person, can we not reasonably expect that the same agent or remedy will remove these conditions in all? If so, it follows that we must first know the pathological condition and the expression thereof, and then know that remedies have a certain definite influence upon the body, and that one must be opposed to the other.

I dare say that we all have seen certain expressions of disease in which certain remedies were found to be curative.

Can we not expect the same remedy to be curative in all like cases?

The expression may unfold to us a pathological condition, and, in such a case, we prescribe for said condition. Yet the expression of disease will many times only point out the remedy, and leave us in the dark about the *lesion*. The remedy, however, acts as certainly as if we knew the exact pathological change the part had undergone. We, as a school of medicine, acknowledge that disease is wrong life, instead of an entity, as our forefathers used to think. This wrong finds a uniform expression in its outward manifestations recognizable by the human senses.

The fact, I think, will not be disputed, that remedies are selective and uniform in their actions; the condition being the same, their action will always be the same. So, if we desire to influence a certain part of the body, we choose a remedy which acts upon that part. Let us observe correctly, and reason to accurate conclusions; a practice resting upon such a rule must necessarily be right.

Now comes the relative importance of these lesions. We want to know which is at the base, upon which others have grown. Let me illustrate: A simple fever has for its basic lesion a disturbance of the circulation; as a result of this, we have an increase of temperature, loss of appetite and digestion, arrest of secretion, and a deranged condition of the nervous system. We have seen that very severe forms of disease thus rest upon this lesion of the circulation, and by giving the special sedatives, this underlying lesion was removed, and our patient became convalescent. Again we have other cases quite as well marked as the above, where sedatives do not even cause sedation. In these cases, the lesion may be of the blood or nervous system, and we look for remedies that act upon the blood or nervous system in such a way as to counteract this lesion. The right remedy being chosen according to indications present, from the class of antiperiodics, antiseptics, nerve-sedatives or nerve-tonics.

The experience of other members of the profession, with that of my own, convinces me that Specific Medication is no

longer a theory but a fact. Enough is known to warrant us in saying that what is true in part is true in the whole; but it requires more thought and study on our part to work out the problem yet unsolved.

From my own practice, I will simply recall a few cases which will illustrate all that is necessary for the present. About three years ago, I was called at midnight to a lady, and found she had been suffering severely with facial neuralgia for the past ten hours. Here was a plain case; should I give Dr. Gross' neuralgia pills? Examination showed oppressed pulse, sharp, lancinating pains, oppression of the chest, etc. Gave fl. ext. lobelia sem. gtt. xv, and in fifteen minutes pain ceased and patient soon went to sleep. I left small doses of lobelia and went home. There was no return of neuralgia.

Case No. 2.—Mrs. K., attended by a midwife, was delivered of a fine and healthy child. All went on nicely until the tenth day, when she was taken with a severe chill, and, in my absence, Dr. H. was called, and, as he afterward told me, found her with the most severe chill he had ever seen, followed by fever, and that by sweating. This occurred every other day, in spite of the quinine and cinchonidia that he had given.

After he had treated the patient about a week, and she was growing worse all the time, another severe chill occurred about 12 o'clock at night. Dr. H. and myself were called simultaneously. Arriving first, I diagnosed the case and selected the remedies that I would suggest to her physician. But the doctor was a *regular*, and hence refused to counsel with an *irregular*; the upshot of which was, that he was dismissed and I retained. Indications called for aconite, rhus tox. and soda sulphite, which were given, and no more chills occurred. Patient made a complete recovery in four days.

Case No. 3 is your humble servant, who has been for years past subject to attacks of bilious colic, the pains at times being almost unbearable; yet before I practiced medicine, I had some of the best physicians to treat me during these attacks, but it would always take me three or four days for recovery. During my professional life, I have experimented with different morphine, chloroform, nux vom., and

many others were used in their turn, without any permanent relief. Tilden's fl. ext. of dioscorea was also taken, but proved worthless. I sent to Wm. S. Merrell & Co., Cincinnati, Ohio, for some dioscorea root, made my own tincture, and when I had the next attack of this painful disease, I took a teaspoonful of the tincture in some water, and it seemed as if the medicine went directly to the spot, the cramp gave way, and I went to sleep, got up in the morning with very little soreness in the bowels, and attended to my business as usual. Now a teaspoonful of the medicine is all I need to give relief.

And in conclusion, let me remark that, as we go on in this course of study, the subject becomes plainer step by step; we learn that similar conditions of disease are always treated alike, regardless of the name of the malady or its location, and, as we thus always prescribe for conditions, we find the practice of medicine really simplified. It becomes a pleasure instead of an unpleasant uncertainty.

[XXVIII.]

GONORRHOEA IN THE MALE.

BY ED. F. RUSH, M. D.

In the treatment of this disease, the physician should take into consideration the general condition of the patient, whether he is anæmic and debilitated, or robust and plethoric; he should ascertain, if possible, if he is suffering from any other disease which is likely to have a depressing effect on the system, or if any complication exists which may exert a modifying influence on the proposed plan of treatment; and above all, the treatment should be adapted to the *stage* of the disease, as some plans of treatment would be injurious in all, and very dangerous in some cases if used in another stage than that for which they are recommended. In the great majority of cases applying to the physician for treatment, acute inflammatory symptoms have already set in, thus placing the disease in the second or inflammatory stage, and in this stage it would be highly dangerous and injudicious to apply the so-called "abortive treatment," which is admissible only in the first and last

stages, and in many cases, is not admissible at all. The regulation of the diet, exercise and mode of life of the patient is of the highest importance in the treatment of gonorrhœa in any and all of its stages; the advantages to be gained by absolute repose and quiet in the commencement of the disease cannot be overestimated, and the great advantages thus to be gained should be explained to the patient, and if possible, he should be induced to follow the physician's advice in this respect, for if he will but keep to his bed for a few days the battle is half won; but, in practice it is very difficult to induce a patient to submit to this restraint; the calls of business or the necessity of secrecy often render the observance of such stringent directions impossible, during an attack of some disease dangerous to life men will stay at home, but hardly ever for an attack of gonorrhœa. At home and at the office, store, or wherever he may be, the patient should assume the recumbent posture as much as possible, and at all times the scrotum should be well supported by a good, snug-fitting suspensory bandage. All kinds of exercise should be avoided as much as possible, walking, riding, dancing, are all injurious and often make a gonorrhœa much worse, or cause a relapse even when, to all appearances, it is cured; rest, absolute rest, is what is required, and the closer the patient observes this rule the more speedy will be the cure. While the acute symptoms continue the diet should be very light, meat, stimulants, asparagus, cheese, coffee and acids should be strictly forbidden. The reading of all books calculated to excite the sexual passion, and the society of females, even if no improprieties be committed, should be prohibited. Should the patient be an habitual drinker, he must not be cut off entirely and suddenly from his accustomed stimulus, for fear of complete nervous prostration; rather limit him to the least possible quantity, and let that be gin or brandy rather than beer or wine, or better than either, one drachm doses of Tr. Cinchona rub. four or five times daily. As before stated, the disease is usually met with in the second, or acute inflammatory stage, and in all such cases, it will be well to commence the treatment with an active saline purge, a full dose of sulphate of

magnesia answering the purpose. In bad cases, characterized by swelling, extreme inflammation and scalding pain in passing urine the following mixture should be used for a few days before commencing active treatment :

R Potas. Bicarb.....3ij.
 Tr. Hyoscyami.....3i.
 Muc. Acaciæ3v. M. Sig.

Tablespoonful every three hours. At the same time, to allay the inflammation and pain, and to reduce the swelling, the penis should be *frequently* and persistently immersed in water *as hot as can be borne*. After the severity of the symptoms have been modified by the use of the foregoing measures active treatment may be commenced.

The most reliable internal medicines are copaiba, cubebs and oil of yellow sandal-wood. Copaiba and cubebs should be given together, as they are more efficacious in combination. The following formula will be found very useful :

R Copaibæ.....3iss.
 Muc. Acacia.....3v.
 Ol. Limonis.....gtt. vj.
 Tr. Cubebæ.....3i.
 Spts. Etheris Nitrosi.....3ss. M. Sig.

Tablespoonful three times daily.

Some stomachs will not tolerate copaiba in any form, and it often causes a very irritating eruption. In such cases, the oil of sandal will be found to be an elegant and valuable remedy ; the only objection to its use is the cost and frequency of adulteration. It can be given in doses of from 15 to 30 drops three times a day on sugar, or in water, or in a mixture, as follows :

R Ol. Santal. flav.....3i.
 Spts. rect.....3iij.
 Ol. Cinnamomi.....M. xxx. M. Sig.

One teaspoonful four times a day.

In connection with this internal treatment, the patient should use either of the following injections.

R * Hydrastis pulv.....3vj.
 Zinci. Sulph.....gr. xij.
 Morphiae Sulph.....gr. viij.
 Aquæ dist.....3vj. M. Sig.
 Shake well, and inject 2 or 3 drachms after each passage of urine.

R Ext. Hydrastis fl.....3vj.
 Morph. Sulph.....gr. v.
 Muc. Acaciæ.....3ij.
 Aquæ dist. ad.....3iv. M. Sig.

Inject 2 or 3 drachms after each passage of urine. In using injections, care should be taken not to throw the injection any further back than is necessary, which can be prevented by pressing on the urethra in front of the scrotum. Care should be taken in the selection and use of the syringe; a hard rubber or glass piston instrument with a rather blunt point should be used, and the physician should administer the injections himself until he is satisfied the patient is competent to do so. Each injection should be retained at least three minutes.

In some persistent cases a very good effect results from the passage of a full-sized bougie once daily, which dilates the urethra and allows the injections to reach every portion of the inflamed mucous membrane. In some cases, it would be well to smear the bougie with some astringent ointment or lotion, such as tannin and glycerine. Treatment should not be stopped suddenly, but gradually discontinued during a period of about ten days.

[XXIX.]

TREATMENT OF HYSTERIA.

BY DR. JOHN A. HENNING, RED KEY, IND.

The young physician must be careful in his diagnosis, and not pronounce the patient pregnant when there is only hysteric distension of the intestines by flatus. He must not mistake hysteric colic for peritonitis, hysteric cough for asthma or limpid urine for diabetes or nephritis.

When called to a paroxysm, the first indication is to remove any tight clothing about the patient, and to administer anti-

* See Clark on "Diseases of Women."

spasmodics if the patient can swallow, such as gelseminum, lobelia, musk, hyoscyamus, valerian, cannabis indica, camphor and hydrate of chloral.

But if the paroxysms are severe and the patient unable to swallow, I have made use of sulphate of morphia, one-sixteenth of a grain, fl. ex. gelseminum, three drops; add half a teaspoonful of water; mix, and, with a hypodermic syringe, inject about half of it in right arm. This will stop the paroxysm at once.

More recently, I stop spasms by a hypodermic injection of clear cold water. It has never failed me, and more than that, it will arrest *immediately* any kind of spasm or pain in almost any form of disease.

If trismus should occur in any case, pour cold water on the head and inject into the rectum about four ounces of a strong infusion of lobelia seed, ipecac and gelseminum. This will be a good-by to trismus in fifteen minutes, as it will relax the entire system.

After the paroxysm, the real cause of the disease must be ascertained, and this must be removed. The physician must also gain the confidence of the patient and friends, and thus wield an influence over the mind of the patient, which is very important. The nervous system must be closely examined, especially the spine, and if any irritation or congestion is found, it must be removed. It is also very important to promote healthy digestion, as sometimes the stomach is very irritable, and if overloaded, or indigestible food is taken, the spasms are likely to occur. Every individual case must be studied, and the indications promptly met.

[xxx.]

ON SOME OF THE SOURCES OF OUR MEAT AND MILK SUPPLY.

BY N. H. PAAREN, M. D., V. S.

(Condensed from a paper read before the Eclectic Medical Society of Chicago, July 2, 1879.)

The question of supplying wholesome food to the people is one which must be regarded as of grave importance. Allegations have, off and on, been abundantly made, and have, with

the progress of time, become more and more definite, that the flesh of animals slaughtered while in a state of disease, and likewise the milk of diseased animals, are extensively sold for human consumption. The farmer within easy railway access to our cities, finds no difficulty in consigning dressed carcasses of diseased animals to some butcher. There is no doubt that a considerable trade is thus carried on by cheap butchers, who sell their meat to the poor, under the yellow flare of a gas-light, at low prices. It is precisely the poor and ill-fed classes who are most likely to suffer from the consequences of consuming such diseased food. The diseased state of an animal not only does not commonly lead the owner to withhold it from being slaughtered for consumption as human food, but on the contrary leads him to take immediate measures with a view to this application of the diseased animal, and that, consequently, a proportion of the common meat of the country—beef, veal, mutton, lamb and pork—comes from animals which are considerably diseased.

The diseases which figure behind the scenes of our dead-meat markets are of course various; but for the purposes of this paper, it is not necessary to enter upon much detail concerning them. The impurities known to us as pervading animal food may be thus classified :

Firstly, Cadaveric venom, including animal poisons of an undetermined nature, developed spontaneously in health and disease. There is a very active cadaveric venom in an animal goaded and heated until it becomes infuriated. The change in the muscular system from death under these circumstances is very manifest; to use the butcher's expression, "the flesh is black," and no part of it has the bright normal flesh-tint seen in the ox killed in a quiet state. Violent dysentery, with considerable febrile excitement, may be induced in man by eating the flesh of an over-driven ox. Animals which, for a succession of many hours, are exhausted by the pains of labor and the interference of men, very frequently perish, notwithstanding that delivery is accomplished. The cause of death is often spoken of as metritis, but the animals rapidly sink in a manner which inflammation of the womb can scarcely

account for. The flesh of such cows has been proved to be injurious if partaken of by man. It is important to notice that no person could tell the carcass of a cow that had died from parturient fever from that of animals even in health sometimes, and it is essential to inspect the cow whilst being dressed by the butcher, to examine the internal organs.

Secondly, Animal poisons well known from their effects in creating specific contagious diseases. These effects are constant, if circumstances are favorable for their development, and unchangeable. Some of these poisons affect both man and animals. At the head of this class we have the anthrax poison. Anthrax in animals is an enzootic disease. The causes essential for its production are the plethoric state and heat. The warmer the climate the more common and deadly is anthrax. Anthrax or carbuncular fever attacks man and all warm-blooded animals. The anthrax poison induces malignant pustule in man, but with a very different degree of severity in different cases. The disease in man produced by eating the flesh, may sometimes be diarrhoea, but more frequently a form of putrid fever, with malignant pustules on different parts of the body. The post mortem appearance of animals that have died of this disease are often localized in one quarter of the carcass, which may be removed and the other quarters sold, much to the danger of human life. Another malady that may be mentioned under this head, is epizootic aphtha, or vesicular murrain, also called eczema epizootica, or foot and mouth disease. The virus of contagious pleuro-pneumonia of cattle also belong under this head. Where this disease is common, there is a prevailing idea that in the early stages the flesh is wholesome, in the last, unwholesome. This opinion is purely theoretical. The acute stage of an inflammatory disease is well known to affect seriously the functional, and even structural or chemical condition of animal tissues; and we know sufficient to condemn the belief that when a lung is inflamed the system may be regarded as healthy. Notwithstanding the certainty that the meat and the milk derived from animals dying from pleuro-pneumonia are usually free from poisonous principles, they are of bad quality. It is

impossible to estimate the ill effects of deteriorated though certainly not poisonous food of this description.

Thirdly, Organic poisons, the result of decomposition. It is a well-known fact that putrefying animal matter is bad and dangerous food for man. The flesh of diseased animals putrefies rapidly. The gastric juice is truly antiseptic, but we cannot trust to its preservative power any more than we can trust to cooking, or other such circumstances, preventing the manifestation of ill effects from putrid meat. There are certain poisons, the result of decomposition, which have specially attracted the attention of observers. They are, sausage poison, and cheese poison. As diseased meat is very liable to putridity, it would be interesting to know if any form of sausage poison may be due or favored in development by its consumption in the manufacture of sausages. The carcasses of diseased animals that are not marketable, and diseased organs are not unfrequently cut up by the sausage maker.

Fourthly, Mineral and vegetable poisons absorbed in the systems of animals and which contaminate the flesh and milk so as to render these unfit for human food. The trade in diseased animals, by encouraging their slaughter rather than medical treatment, to a certain extent prevents the sale of drugged carcasses; that is, the bodies of animals that have received large doses of medicine for the treatment of disease. It is difficult to detect by examination of meat if it contains poison. Chemical analysis alone will reveal the fact. The danger of attending the cases of accidental poisoning, from agents swallowed by animals yielding food for man, are quite serious enough to induce us to be guarded in permitting the use of such produce.

Fifthly, parasitic animals and vegetables inducing disease in man and animals. The discoveries of zoology demonstrate the importance of a careful study of this subject in its practical application on the inspection of meats. The prevalence of hydatids in the herbivora is very great. Cattle are very subject to attacks by the echinococcus veterinorum, and pigs are often measly; that is to say, their flesh contains the cysticercus cellulosæ. Concerning tænia solium in man, it is evidently due

alone to eating raw or underdone pork. Then we have the easily-overlooked, but highly important disease in swine, which consists in an infestation of their muscular system by the minute immature forms of the trichina. With regard to parasitic vegetables inducing disease in man, we have few facts. Cattle suffering from ringworm—a very common disease, especially attacking the head—are apt to induce eruptions and boils on the hands and arms of persons who attempt to clean the skins.

It is, for obvious reasons, impossible, in the present state of knowledge, to state in detail what income of morbid product flows from each of the above-mentioned sources into the markets which supply us with food. It is a fact that if disease enters the stock, in many instances no treatment is adopted, and, to use a common expression, the animals are killed to save their lives. To save the flesh of animals dying suddenly, it is an old practice to bleed them before signs of life have entirely passed away. Should, however, treatment be pursued for some time, it not uncommonly happens that the veterinarian finds himself supplanted by the butcher, who prescribes "cold steel;" and, after being thoroughly impregnated with various medicines, the carcass eventually finds its way to the stall of the butcher in town. Specially-diseased organs will often, perhaps commonly, be thrown aside; but that some sausage-makers will utilize even the most diseased organs which can be furnished them, there is no doubt.

Disgusting as are the reflections which it suggests, there is not in it anything intrinsically improbable. For obviously, wherever there is dangerous disease among stock, the owner's commercial instinct will be to make whatever salvage he can; and while he must well know that selling dead stock for meat pays better than selling it for manure, the public has no sufficient safeguard against his yielding unreservedly to that motive.

With regard to that minor branch which relates to the milk of diseased animals, it has been established by experiments as certain, that, at least under some circumstances, diseases in man may be caused by the consumption of milk drawn from diseased animals. It may be that the frequency of such

communications, as compared with the number of persons who (more or less) are consumers of milk, is not great. Further inquiry is wanted to ascertain whether it be true that the milk from apthous cows, if used for food, especially by young children, who are likely to be the largest consumers of it, is apt to produce disturbance of the stomach and bowels. With regard to the milk from cows affected with contagious pleuropneumonia, it is often in excessive quantity in the incubative stage. When cough and a slightly-checked secretion are observed if an animal is slaughtered, a lung may be found already extensively hepatized. For a few days the milk continues to flow. It is altered in quality, poor, and apt to curdle. It often contains pus, and even blood. It is impossible to estimate the ill effects of deteriorated though certainly not poisonous food of this description.

Fleming says, there cannot be a doubt that the milk of diseased cows suffering from tuberculosis is deteriorated in quality; but that its use as food is likely to induce phthisis, we are only now commencing to obtain proofs. Klebs has carried out a series of experiments on various animals to test the action of this milk when given as food, and has been successful in inducing tuberculosis in them. The results of his experiments led him to the conclusion that the use of this milk always produces tuberculosis, which first commences as intestinal catarrh, and then assumes the form of tubercles in the mesenteric glands; it afterward attacks the liver and spleen, and subsequently the thoracic organs. He asserts that the tuberculous virus exists in the milk of phthisical cows, whether they are slightly or seriously affected, and that it is chiefly in the serum; as when the milk has been so filtered as to deprive it of its solid particles, the fluid portion appeared to be as active as the unfiltered. Its virulency is not destroyed by ordinary cooking, and it is all the more active as the disease has reached an advanced stage. He admits that it may produce no injurious effects in vigorous subjects; and he has observed fully-developed tubercles to be absorbed and disappear after a time. He thinks it probable that the virus of tuberculosis may exist in varying proportions

in the milk of phthisical cows, according to the extent of the disease in them. It is certain that tuberculosis is a somewhat common and a very destructive disease, among dairy cattle especially, and more particularly those in towns; that the udder is one of the glands not unfrequently involved; that infants and adults consume milk in large quantities; and that phthisis is a very prevalent and fatal malady in the human species, and chiefly among the dwellers of towns and cities. Even if such milk did not possess infective properties, its deficiency in nitrogenous elements, and fat and sugar, and the increased proportion of earthy matters, would alone render it an objectionable article of diet. It had long been known that it was liable to produce diarrhoea and debility in infants; but though these died from general or localized tuberculosis, the part played by the milk in its production was not suspected.

The active traffic in diseased animals, the imperfect system of inspection of meat, the uncontrolled trade in milk from whatever source it may come, demand investigation, and the adoption of measures to protect the public interests in a pecuniary as well as in a sanitary point of view.

[XXXI].

MEDICAL EDUCATION.

BY S. H. POTTER, M. D.

[A paper prepared by special appointment for the ninth annual meeting of the National Eclectic Medical Association, at Cleveland, Ohio, 1879.]

“A little learning is a dangerous thing;
Drink deep, or taste not the Pierian spring;
There shallow draughts intoxicate the brain,
And drinking largely sobers us again.”

This poetical sentiment of Pope is especially true with its logical force in regard to those who aspire to the honorable position and very responsible duties of the practice of medicine. Want of proper qualifications for any useful life pursuit is disgraceful; it works personal and public evil in exact ratio to such want. Thorough training and careful culture for the medical profession are paramount to all other pursuits.

because that profession practically deals only with the health and life of people of all ages and conditions. In importance, all other professions sink into comparative insignificance, since life is of little value without health, and "all that a man has will he give for his life." No other calling takes so wide a scope, or necessitates so much culture.

The history of medical institutions and education in the United States is interesting and instructive. The first medical college was organized in Philadelphia in 1765, by Drs. Shippen and Morgan. During and after the war of Revolution, it was suspended eighteen years, or until 1783. Three more colleges—Harvard, King's College and Dartmouth—were organized during the next seventeen years, or before 1800. The curriculum of these early colleges required a good English education, with some classical and scientific acquirements, three to four years' previous study, attendance of two full courses of college lectures and demonstrations of twenty to twenty-two and twenty-four weeks each, after which a thorough and satisfactory examination, as prerequisites to graduation. At this early period, all this was required, when anatomy, physiology and organic chemistry were imperfectly understood and taught; diseases of eye and ear, those of women and children, received very little attention; the chemistry of the urine was not then known; of course kidney diseases could not have been known or taught; nothing was then known of the physical diagnosis of diseases of the lungs and heart, which alone require the close study of months; little was then known about the nervous system, or its many and grave disorders, and nothing of electricity as a therapeutic agent. Since that period, histology, the use of the microscope and other "instruments of precision," have been put into important and indispensable use, to which must be added the vast range of modern sanitary science, with other new and inviting fields of inquiry which have been opened to medical students. During this century, vast additions have been made to *materia medica*, and the physiological and therapeutical action of remedies. Surgery, under the modern use of antiseptics and anæsthetics, has extended its domain far beyond the most

sanguine imaginations of "the fathers" of it. The advance in inventions of instruments and numerous appliances highly useful, often indispensable to successful and efficient treatment, is truly wonderful.

Thus it may be readily seen that the area of medical study and inquiry for students has vastly extended since the first colleges were organized and operated, and yet, strange to know, students in these modern times of broad and comparatively accurate investigations are allotted less time, and with less literary and classical acquirements, to learn their varied, important and numerous lessons. Obviously this is a great error, and little time should be allowed to pass until it is corrected, giving instructors and students ample time to do themselves full justice, and in the best interests of the profession and the people at large. Reformers should be among the first to reform this obvious evil. We must not overlook the fact that we have many eminent physicians and surgeons who are mainly self-made men, who are far beyond the average culture of medical schools, an honor to our profession and country, and to whom the world is indebted for many important discoveries which give our profession a world-wide reputation. So in literature, men have attained to great eminence and wide usefulness unaided by the facilities afforded in schools. But these are rare exceptions, forming no safe rule in solving the problem of proper school education, hence the great utility of our common-school system.

The time of medical study in the United States is three years, and without any settled preliminary qualifications. In Canada and England, four years are required, from eight to nine months in each year are spent in medical colleges and attendance on hospital practice. A good preparatory education is required, and the studies are graded with frequent examinations for promotion, which are made outside of the teaching faculties. Germany and France require about five years. The Austrian Empire, Italy, Portugal, Russia, Australia, Denmark and Belgium compel a full five-years course. In Holland, Brazil, Chili, Venezuela and Cuba, six years are made obligatory, and a still longer time is required in Sweden

and Norway. In all these countries, the studies are graded, so that students are not studying everything at once, as they are obliged to do in colleges in this country.

Our medical education has, for a long time past, in lack of thoroughness, system and arrangement, compared most unfavorably with that of most other countries of the old and new world. The worst features of it consist in the rapid multiplication of colleges, in students without due qualification entering them, quite too short terms of lectures, and the stuffing process of teaching everything at once. What would be thought of such a classical course? Thus, inducements are offered to young men and maidens, without regard to fitness, to come and acquire quickly and cheaply an honorable profession and position. In this manner, medical colleges have "overstocked the market"—the demand for doctors—by graduating about three thousand a year of good, bad and worse, by which, with the few unenforced legal restrictions on the right to practice medicine in most of the States, with or without a diploma or license, or any known qualifications whatever, we have one doctor(?) for every six hundred people.

In countries where requirements for a higher and proper medical education exist and are enforced, the proportion of physicians diminish in corresponding ratio to the population. Canada has only half as many, or 1 doctor to 1,200 people; Great Britain has but 1 to 1,672; Austria, 1 to 2,500; Belgium, 1 to 2,048; France 1 to 1,814; Germany, 1 to 3,000; Italy, only 1 to 3,500; Norway, 1 to 3,480. Thus it is seen that we have 2 doctors to 1 in Canada; 3 to 1 in England; more than 4 to 1 in France, and 5 to 1 in Germany.

The necessary relative proportion of physicians to the inhabitants has been variously estimated at from 1 of the former to 1,500 to 2,500 of the latter. The average required throughout civilization would most likely be included within these proportions.

Medical colleges have increased in the United States from one in 1755, or only four in 1800, up to about eighty in 1875, or more than ninety now, in June, 1879. A much larger number have been organized, had an ephemeral existence

and then suspended. Of the present number being operated, six are eclectic, twelve are homeopathic, two are physiopathic, and about seventy assume to be "regular," although how one college, incorporated according to legal statutes made and provided, can be more regular than another, or "the only regular school," is a problem which no fair-minded man can solve. Common-sense people naturally hold all "*equal* before the law," differing only where any fail to fulfill what the law dictates should be done by organization under it.

In the many discussions which I have read, no class or kind accuses any others of being special experts at rapidity and cheapness in manufacturing doctors. Not long ago, all were included under this great sin against our profession and the people. Nor can any sect elevate clean hands as a rule. "A general awakening" upon this important subject appears to have recently occurred, and, as usual, great reformers are rising and inveighing cogently against this great evil in our country. There appears to be a spirit abroad looking to a radical reform; better preliminary qualification to begin medical study; longer terms of study and lectures; a graded course and graduation on real acquirement or merit. Shall we yield our voluntary influence in the right direction, or wait until compelled? Plain indications point to a near future of medical education upon a much higher and better plane, and it is hoped and believed that we, as a fraternity, will be neither last nor least in contributing to this very desirable end.

[Continued in next journal, in which a brief history of Eclecticism will be given.]

[xxxii.]

VIBURNUM PRUNIFOLIUM (Black Haw).

[From Prof. Goss' New Medicines.]

This little tree, or shrub, belongs to the genus *Viburnum*, the same that furnishes the cranberry and sheep-berry. It is an erect, tree-like shrub, growing from twelve to fifteen feet in height. It has dense clusters of snow-white blossoms in early

spring. It grows all over Georgia, and most of the Southern States, bearing an abundance of black berries, which are edible, being of a sweetish taste. It grows mostly in dry copses, and open woodlands, near streams.

Medical Properties.—This humble little shrub furnishes one of our positive remedial agents. No remedy in the materia medica is more positive in action than the *Viburnum Prunifolium*. It does not have a very wide range of action, being confined to the uterus. Dr. Pharis, of Newtonia, Miss., in the year 1866, wrote an article on the uses of *Viburnum*, which was first published in the *Atlanta Medical Journal*, which then called the attention of the profession to it, but I was familiar with its use long before that period, and had used it in several cases of threatened abortion successfully. I have used it for several years in cases where there was considerable dilation of the os uteri, and it has always checked it. I usually give the fluid extract in doses of one drachm. The earliest mention of the *Viburnum Prunifolium* as a medical shrub is in a work written by James W. Mahoney, who obtained his information from a half-breed Cherokee, whose name was Richard Foreman. Mahoney mentions it as being the safest diaphoretic for pregnant females. He also says that it is tonic and anti-periodic. I have never used it for any purpose except to prevent abortion, and I have never found any article as efficient and prompt as this shrub. In the year 1863 or 1864, I was called to a female who had miscarried, and a lady friend who was nursing her, and was also in a pregnant state, becoming sick from the smell of blood, was attacked with labor, and I had her to use a tea of the root-bark of the black haw freely, which arrested the labor at once. In a short time after this, I was called to attend a young lady who was in hard labor at the fifth month of pregnancy. I gave her the infusion of the bark of the root of black haw freely, and it checked the labor, and she went her time. I was recently called in consultation with another physician, to a lady in hard labor at the sixth month, and we gave 13 of the fluid ex. of the black haw, which arrested the labor at once.

SELECTED.

A Case of Fistula in Ano, with a Few Practical Remarks Regarding the Surgical Operations for Its Relief, as also the Action of the Sphincter Tertius Described by Hyrtl.

BY T. G. COMSTOCK, M. D., ST. LOUIS, MO.

Cases of fistula in ano, or more correctly, fistula in recto, occur so frequently in surgical practice, that I shall take occasion to call the attention of the profession to a few particulars regarding the surgical anatomy of the sphincter muscles.

Some years ago, when a pupil at the University of Vienna, while attending the lectures of Prof. Hyrtl, I first learned the existence of a *sphincter tertius*. It is remarkable that this sphincter is not mentioned by Gray or other English anatomists. That such a muscle (whose action is really that of a sphincter) does exist, is to me a matter of no doubt; and if such were not the case, the radical operation for fistula (dividing the lower sphincters), would be followed by very unpleasant consequences—in other words, we should have as a result, involuntary fæcal evacuations. That such an untoward result fortunately does not often occur, every experienced surgeon knows, but the reason for this we shall give by quoting the following, which we have translated from Hyrtl's Anatomy.*

“The older surgeons were astonished, after having divided the sphincter muscles in operations for fistula, that no involuntary discharges of fæces followed. Faget found, after removing the lower end of the rectum from a patient, that he could retain his fæces and flatus, and he explained this upon the hypothesis that a new sphincter must have subsequently formed. Houston was not disinclined to believe that the lower portion of the rectum, where a fold occurs as it passes through the pelvic fascia, was surrounded with a development of circular fibers. Lisfranc, who many times extirpated the terminal portion of the rectum, noticed that such patients

*Handbuch der topographischen Anatomie, Von Josef Hyrtl, Zweiter, Band, p. 141, 5te Auflage, Wien 1865.

were not deprived of the power of holding back their stools, and declared it as his opinion that, as a positive necessity, a superior sphincter must exist. Likewise, every unprejudiced observer must allow of the existence of such a muscle, for the reason that in prolapsus ani, where both the external sphincters are paralyzed, no involuntary stools occur.

"In rupture of the perineum and congenital opening of the rectum into the vagina (cloaca) the same thing happens. Ricord cites the case of a woman aged twenty-two, where the rectum opened into the vagina, yet the bowels acted regularly, and, what is more remarkable, the husband, after having been married three years, had no conception of this abnormal condition of his wife.

"When the index finger is introduced into the rectum of a patient who has had no action from the bowels for a few days, as a rule, just above the anus, no fæces will be found, and yet the column of fæces would naturally sink down to this point if not held back by an opposing circular muscle. Kohlrausch opposed this view, which presupposes the existence of a third sphincter, because he found upon dead subjects, as well as in patients, hard scybala in the lower portion of the rectum; but I take occasion to mention that the existence of fæces in the rectum upon subjects simply proves that the sphincter tertius no longer acts, and the same thing in the living (in patients), may be the result of diseased conditions, and which affords an example of an exception to the rule. Enemata which are not introduced high enough into the rectum, are liable to come away immediately; on the contrary, if the canule (extremity) of the syringe is pushed up sufficiently high, the injection will be retained a longer time. Dr. O'Beirn called attention to the fact that an elastic tube can be introduced quite a distance into the rectum, before any flatus is given off, and then the discharge comes suddenly. All these observations make it probable, *a priori*, that at a certain distance above the internal sphincter ani, a third sphincter must exist. Nelaton and Velpeau have demonstrated the existence of it, as a thickened band of muscular fibers, four inches above the anus. This muscular development is not always easy to find. To find it

upon the cadaver, care should be taken that the rectum is not forcibly distended with air:

“In order to demonstrate it well, the rectum should be cut upward longitudinally, and stretched upon a board, and the several layers carefully dissected off until the muscular layer is reached, when the sphincter tertius, if present, will be seen as a broad bundle of thickly conglomerated muscular fibers. Not unfrequently this investigation will be fruitless of a result, but the physiological fact that there are developed muscular fibers encircling the rectum at this point is not to be doubted. In one instance I have publicly demonstrated the existence of the fibers of the sphincter tertius taking their origin from the sacrum.

“This third sphincter does not permit the excrements (fæces) which are in the sigmoid flexure and are pressing down, to reach the lower rectum. Only when the desire for an evacuation exists, does it relax and allow the fæcal column to come down on the lower sphincters. These latter can voluntarily keep back the stools for a long time, and are assisted in their efforts by the levator ani muscle, as likewise by the buttocks (nates) firmly pressed together, so that when one is unfortunately in such a critical situation (for obvious reasons), he takes care not to take long steps or to run. At last, these muscles, from having such an unusual strain upon them, become paralyzed, and then follows what, under such circumstances, is, of course, unavoidable. When the lower end of the rectum is removed, or the sphincters are divided, as in the operation of rectal fistula, then the patient will not be afflicted with the most hopeless and disgusting of all ailments, viz., involuntary stools; for when the slightest desire for a stool is experienced, and the upper sphincter is relaxed, the evacuation below is being accomplished, because simultaneously the two lower sphincters will involuntarily be relaxed.”

I should perhaps mention that Dr. James R. Chadwick, of Boston, in a very elaborate article,* regards the sphincter tertius as “a collection of constricting bands, and a part of the general circular layer of muscles whose function is to dilate

*Transactions of the American Gynecological Society, Vol. II, p. 43. Boston, 1878.

before and contract behind the scybala, thereby propelling them on their way, and not retarding them." He proposes to call this sphincter a "*Detrusor fœcium*." I did not intend to discuss Dr. Chadwick's essay, but the facts adduced by Hyrtl are undoubtedly true. I was called in consultation in May last, to see a gentleman, who, to avoid a collision, jumped from a railroad train going at the rate of forty-five miles an hour; he struck with great violence upon the end of a railroad iron, which seems to have raised up, and which penetrated him in the region of the perineum. The injury was so great that it seemed almost as if he was cleft in twain; suffice it to say, the lower end of the rectum was so contused and injured that it sloughed away. Fortunately, the patient had, a short time previous to the accident, passed a large stool, and, notwithstanding the severity of the shock and loss of blood, with the subsequent surgical fever, he had no operation from his bowels for some seven days. This gentleman has recovered, but the lower portion of the rectum is quite gone, and yet he can control his stool. Is this not an instance of the existence of Hyrtl's sphincter? When we have a fistula of the rectum, why is it necessary to divide the sphincter in order to enable the parts to heal?

1st. Because all efforts at healing, as a general rule, fail, unless we can expose the pyogenic membrane which often lines the fistulous tract. 2d. The healing process is prevented by the constant motions of the sphincter and levator ani muscles; because with every act of respiration they contract, and thus prevent healing; and to do away with this effectually we must make a section of the sphincter. Occasional cases are reported where a cure results without dividing the sphincter.

Sir Astley Cooper mentions two cases; Ashton* mentions several in his large experience; Dr. Ordway, of Boston,† reports that he has cured many cases by injection with Sesqui-Carbonate of Potash (vegetable caustic); however, such cures are, in the experience of the profession, exceedingly exceptional. In my own experience, I know of only one case thus

*Fistula in Ano, and Hemorrhoidal Affections, London, 1873.

†Boston Medical and Surgical Journal, Vol. XCIX, p. 657.

cured—it was a clergyman, who refused to be “cut,” and after one year reported to me that he was cured by injections and pressure combined; the pressure was by means of a compressed sponge introduced from time to time within the anus. Patients fear the knife, and willingly resort to salves for relief, and in this respect history repeats itself for the past two hundred years. Louis XIV, King of France, was so unfortunate as to be afflicted with a fistula. His medical attendant seems to have been a real practical surgeon, versed well in surgical pathology as well as therapeutics. He diagnosticated the ailment of the King, and informed his Royal Highness that the cure could be accomplished only through a surgical operation.

The King was very shy of being cut, and as various methods of treatment had been proposed for him, “without any resort to the knife,” he was shrewd enough to object to have them tried upon his royal person until he should have seen their good effects upon others; and he accordingly ordered a number of his subjects suffering from fistula to be treated in accordance with the different plans which had been suggested. Among other cures, the mineral springs of Barege, as also the waters of Bourbon, were proposed, and to these springs he sent the patients, accompanied by a physician, whose province it was to observe the results of the drinking of and the bathing in the waters, as well as the injecting of the same waters into the fistulæ. After some months, these invalids were all brought back to Paris, and the fistulæ were nearly as bad as when they went thither. Next, chambers or wards were fitted up at the royal expense, and the patients with fistulæ were there carefully treated in accordance with the various methods of cure of pretenders, who recommended ointments, salves and solutions for injecting, as likewise internal medicines. A whole year was spent in this way in experimenting, but not one of the patients was cured by any of these means. At last, the King gave in to his surgeon, Mons. Felix, who operated upon him November 21, 1687, making the identical operation of the present day—freely opening the sinus into the gut, and cutting through the sphincter. The operation was a success, and the King was, in a short time, perfectly cured.

I have taken the liberty of calling attention to the above case, which may be of historical interest to the surgeon of the present day, and may be regarded as classical.

Fistulæ of the rectum may occur in the young or old, and may accidentally happen to those leading a pure and regular life; but high livers and those who are intemperate are especially liable to them.

The following case came accidentally under the attention of the writer: In August last, while on a visit at Le Roy, N. Y., I was consulted by Miss —, a young lady aged twenty-six.

She informed me that some eighteen months previously, from the effects of a fall, she had suffered from an abscess in the ischio-rectal region, which had finally terminated in a double fistula. For this affection, she had been to a "Cure" for five months, and was there treated by the lady physician in charge, who had improved her general health very much, and had endeavored to heal the fistulæ by various injections and other applications, but without effect. Upon examining the case, I found two fistulous openings upon each side of the posterior commissure of the vagina, extending into the rectum. I introduced a probe into one opening, and found a fistulous tract terminating in the rectum at a distance of over two and one-half inches above the anus. I then introduced a second probe into the opposite opening, and succeeded in passing it through the tract of the same opening also into the rectum; with one index finger in the rectum, I made the end of each probe impinge upon it. Here then was a double fistula with one common opening in the rectum. After this diagnosis, I announced to the young lady's mother that her daughter's ailment could be easily relieved by a surgical operation, the nature of which I explained to her.

Several objections were made to the operation, and I was solicited to try and cure it by other means.

The first objection was, that such an operation was not approved of by her last medical adviser, who proposed to cure the fistulæ by placing the patient under the influence of Ether, and then forcibly distending the sphincter, to paralyze

the same, and afterward to treat the fistulous tracts by injections, and thereby hoped ultimately to affect a cure.

Second, her last medical adviser regarded the patient as "a bad subject for the healing process, should any surgical cutting be done."

Third, the patient herself objected to the knife. As I had firmly stated that no cure could follow any procedure whatever short of a radical operation, and as the patient was a near relative of mine, and therefore feelings of delicacy were involved in the matter, I proposed that the young lady and her mother should accompany me to Buffalo, to consult Dr. J. F. Miner.

They accordingly did this, and Dr. Miner was consulted September 23, and he quite agreed with me in the diagnosis, and approved of the treatment as above proposed; in other words, Prof. M. said, "it is a case to be treated in accordance with the principles and practices of surgery," that the pyogenic surface of the fistulous tracts should be freely and completely exposed, and incision into the common opening in the rectum, and the sphincter divided. As the patient had, at all hazards, objected to the knife, as a *substitute*, I suggested to Dr. Miner the feasibility of operating by ligature, to which he assented. The principle of this operation by ligature is as old as Hippocrates, who used the *seton* in fistula. For improvements in the use of the ligature, we are indebted to Dr. Dittel, of Vienna, who first proposed the *elastic ligature*, which is made of India rubber, the size of a small whip-cord. The end of the ligature is split with a pair of scissors; then it is threaded in the eye of a good-sized silver probe; then the probe is introduced into the fistula and pushed into the opening in the rectum, and brought out through the anus; then the two ends are passed through a little leaden ring (not unlike to a good-sized buckshot with a hole through it), and stretched to its maximum tension, then the ring is crushed or clamped with strong forceps or pincers in such a wise that the fistula is included or strangulated within an elastic noose, and this tension steadily maintained until the ligature in time performs the part of a knife by cutting through the sphincter, when it is

discharged. This new method, by the elastic ligature, has not only the sanction of Dittel, the inventor, but of Allingham and Sir Henry Thompson.*

Having given my reasons for using this ligature, supported by surgical authorities, I accordingly made trial of it in this case.

I returned to Le Roy with the patient, and, assisted by Dr. R. Williams, proceeded to make the operation, September 26, 1878. The bowels were evacuated early in the day with an enema, and Dr. Williams administered to her by inhalation, a mixture of three parts of ether to one of chloroform; she soon came under its influence, when I introduced an elastic ligature into each sinus, and passed them through the common opening into the gut; the ends of each were then brought through the ring of lead and each one separately clamped, as I have above described. The patient, although delicate and nervous, had no untoward symptoms after the operation, with the exception of a diarrhoea on the fourth day, which soon subsided. One ligature cut through on the eighth day and the other ligature on the tenth day. The patient was quite comfortable through the whole time of treatment, excepting the slight looseness of the bowels above mentioned, and made a rapid recovery. A little gap or cleft made by the division of the sphincter did not entirely heal for some weeks, but she always had perfect control of her bowels, and, at this time, three months after the operation, she is quite well. After the operation, I was obliged to return to St. Louis, but left the patient in charge of Dr. R. Williams, a resident practitioner in Le Roy for twenty-five years past, and to whose careful attention the favorable issue of the case is not a little due.

I am quite certain that experienced surgeons will not give up the knife for the elastic ligature, and the writer of this does not wish to be considered as recommending it above the knife; but it certainly has its advantages, and these I shall take the liberty to enumerate.

*See Braithwaite's Retrospect, Part LXIX, 1874, page 108 and 179. Also Elastic Ligature, in anal fistula. Directions for its use, by Allingham. *Phila. Med. and Surg. Reporter*. Vol XXXIII, p. 153 and 110.

SUMMARY OF THE ADVANTAGES OF THE ELASTIC LIGATURE.

1. Applicable as a substitute for the knife when the patients are delicate, timid, possibly phthisical, and positively decline "to be cut." 2. Appropriate when the opening in the gut is situated unusually high up. 3. Operation followed by no hemorrhage. 4. Patients not necessarily confined to bed after the operation, but may go in the air, and, in some instances, even pursue their ordinary avocations. 5. Little suppuration after the operation. 6. Recovery usually rapid. 7. Operation in many cases may be performed at the surgeon's office, and the patient get up from the operating chair and go home without discomfort.

Lastly, Dr. William Allingham says: "I do not consider the elastic ligature can ever supplant the knife in the treatment of fistulous sinuses. In complicated cases, the knife must be depended upon mainly, but I am of the opinion that the India rubber ligature is valuable in many cases as a substitute, and in others as an auxiliary, to the usually employed method of excision."—*United States Medical Investigator*.

Lactopeptine.

A year ago we gave a strong indorsement of this elegant pharmaceutical preparation; to-day we repeat it with emphasis. The experience of an additional twelvemonth has confirmed us in our former opinion. The advantages of using a preparation of uniform composition are, we should think, sufficiently evident. If not, then a trial of the article referred to, compared with a mixture made according to the published formula by a number of ordinary pharmacists, will convince the most incredulous. The demand for Lactopeptine is so great that it can always be had freshly prepared; for the same reason the manufacturers are enabled to keep up its standard of excellence.

If any argument were needed against the absurd rule attempted to be injected into the Code of Ethics of the American Medical Association, forbidding the use of articles protected by a trade-mark, it could be furnished by the uniformly

good results obtained from the use of this preparation. If druggists were always honest and competent, and were always in possession of good preparations of pepsin, pancreatine and diastase, such a preparation might be superfluous, but while the contrary is often true of these assistants to the physician, a trustworthy article like Lactopeptine is indispensable.

While cholera infantum is so prevalent in this section, it may not be out of place to again call the attention of physicians to the fact that in Lactopeptine we have an invaluable agent in aiding digestion and arresting the progress of this terribly fatal affection. We have found a combination with bismuth subnitrate of especial value in this disease. — *St. Louis Clinical Record*.

Treatment of Gonorrhœa.

Having used every treatment I could get from different journals, and a great many sent to my drug store by numerous physicians, I have the right to select and advocate the one that has given me success in every instance, except with those who will not leave off their whisky, and success, with that class oftener than failure. If I am advised with at the beginning of the trouble, I prescribe :

R. Hoffman's Anodyne.....2 ounces.
 Sweet spts. nitre2 ounces.
 Bal. cop.....2 ounces.

Sig. Eighty drops three times a day.

R. Chlor. pot.....40 grains.
 Quinine.....16 grains.
 Arom. sulph. acid.....10 drops.

Dissolve quinine in acid, mix in 8 ounces of dist. water and add chlorate pot. Sig. Inject three times a day, urinating first.

I also order a mild saline cathartic every third day, and a teaspoonful of Battle & Co.'s Bromidia at bed-time. I find the bromidia to act better than any anodyne I ever used; it successfully prevents painful erections of the penis. After

using the above treatment for five or six days, I then prescribe 10 grains of iodide pot. in a dessertspoonful syrup sarsaparilla. It will cure all cases inside of four weeks. The iodide of pot. is a treatment of my own; I have never read of its being used in this disease. I attribute my success to the use of this drug. I am anxious to know if it has ever been used by yourself or any of your subscribers. Ricord claims this salt to produce a discharge from the urethra and vagina, resembling blennorrhœa.

S. E. BROWN, M. D., in *Med. Brief*.

EATONTON, Ga.

"Thimble-Blistering" Method of Using Morphia.

BY J. C. WATSON, M. D.

I beg leave to notice the simple and very useful mode of using morphia which, in my hands for several years past, has given perfect satisfaction, and, in very many instances, has worked as if "by magic."

I shall call this little operation *Thimble-Blistering*. I claim for it very great advantages as compared with the other modes of giving morphia, and especially, in my humble opinion, should it substitute the use of the hypodermic syringe, when we shall have compared the relative value of the two modes. I mention as being of greatest importance, in reference to this mode, absolute safety; secondly, its speedy and efficient action; and thirdly, the absence of the annoying, and sometimes even distressing, symptoms which so frequently follow the use of opium or its preparations.

The profession must admit that some deaths have been caused by the use of the remedy when hypodermically administered, even in the hands of skillful and careful physicians, and reasonably to be accounted for. When we once inject under the skin of our patient one dose or repeated quantities, we must take the consequences—be the quantity administered enough or too much. There seems to be no way that I am aware of to take back the dangerous or even fatal dose which we may have innocently used. Do not understand me as

underrating the true value and great usefulness of the needle syringe, as I have owned and used one constantly until a few years since. But, though classed among the bold practitioners, I am free to say that I have never used the syringe without more or less fear and trembling; and on more than one occasion have I agonized and sweated as much as my patient, for fear of having overdone the thing at last, and thereby blasted, for some time at least, my professional reputation and aspirations.

Having claimed for the thimble-blistering process absolute safety, I should give the reason, which is, I think, plain. Having obtained relief with the least amount of morphia, we can wipe away the remaining quantity of morphia with the happy assurance that our patient is in no danger, and in the vast majority of cases, too, he will escape that distressing nausea so often following the use of the remedy when given by the mouth or with the syringe.

I will mention, as some of the minor reasons why I prefer the thimble process, the following: You can find a thimble in any house; any one can use the method with success and safety; no one objects to its use—there being comparatively no pain and no danger of abscess; and it may be used on any part of the body, from the heel to the crown of the head.

It is a pleasure to award to my esteemed friend, Dr. John S. Apperson, the credit, and my heartfelt thanks, for having suggested and tried on a patient of ours the mode which impressed me so favorably at the time, and which has caused me to set aside entirely the hypodermic syringe.

An ordinary sewing thimble, a little loosely picked up raw cotton, enough aqua ammoniæ (strong) to saturate cotton without running out, are the preliminary agents required. Gently press the thimble over the selected spot until sensation of heat has been felt for two or three minutes; wipe away any ammonia which may remain on the surface; now, with the finger, rub away the superficial skin; apply dry morphia by at first gently rubbing on, and then carefully adding a drop of water. A small quantity of morphia may be repeated at short intervals

until your patient feels its effects, or is satisfied with the relief obtained.

Be sure you hold on until you get the blistered surface. Don't rub at the skin and then apply the ammonia; otherwise your patient will not be impressed with the beauty or comfort of the operation, and, on another occasion, might throw a damper over your zeal by calling for the syringe, or wishing some other mode to be used.

For affections of the face and head, I select the mastoid portion of the temporal bone as being the best point for the application of the blister.

In conversation with my friend, Dr. Apperson, I find he does not seem to have used morphia much in this way, nor could he tell me when or where he got the idea. Within the last few years, roughly speaking, I have used this mode probably one hundred times, and in but two cases have I had obstinate nausea, and in these I imprudently used too much morphia.

—*Medical Monthly.*

On Catheterism in Cases of Stricture on Physiological Principles.

BY JOHN GAY, F. R. C. S., SENIOR SURGEON TO THE GREAT NORTHERN HOSPITAL, ETC.

Cases of stricture, I need hardly say, often come under the care of a surgeon, especially in hospital practice, in which, owing to the patient's neglect, a stricture barely permeable becomes almost suddenly impervious, and the surgeon is called upon to procure a passage of some kind for the urine in the teeth of every obstacle, normal and abnormal, that can waylay his efforts and make them difficult. It is to the earlier period in this (the culminating) stage of such a case that the following remarks are designed to apply.

A man, aged twenty-eight, recently presented himself at the great Northern Hospital during my visit. He had suffered from stricture for years; had had urethral discharge in abundance, and chronic balanitis as well. Latterly his urine had dribbled away, and, before reaching the hospital, this resource had failed him. Catheterism was attempted by skilled hands, but in

vain; and, as early relief was necessary, an operation was advised, but refused. On examination, it was found to have a hard, firm and painful structure about three inches from the orifice, for which I proceeded to use a catheter on the following principles:

1. As it is, the urethra is absolutely impervious to the passage of the catheter from a combination of causes, viz., the stricture growth engorged with mucus and blood, and rendered painful by futile catheterism; and certainly spasm. It is not, however, absolutely impassable.

2. The tightest part of the stricture is that in front.

3. The unconditional use of a catheter would, in such a state of the parts, certainly intensify the difficulty by calling into play a new source of resistance, in the form of normal muscular antagonism, to its passage—a force that is ever on the alert to oppose the enforced passage of a foreign body through the urethra into the bladder.

4. The automatic force can be brought under complete control by an act of volition, and not only so, but be made to impart to the strictured canal the greatest amount of potency and passivity of which it is capable.

5. The means to this end consist in making the patient bring the sphincters or detrusors of the bladder and urethra into a state of absolute rest by voluntarily, but gradually, calling into powerful action their antagonists, the expulsors or accelerators, and using the catheter whilst the force thus elicited is kept in a state of strain.

6. This mode of palsyng the detrusors has another advantage which anæsthesia does not possess, since it assists the surgeon by employing the urine as a dilator, and thus reduces the resistance of the stricture slit.

In the case before us, the method thus indicated was carried out as follows. The patient was made to stand, supported by assistants, upright against a firm support, with outstretched legs—a position I always insist upon in catheterisation, if feasible—and being prepared with a well-warmed and oiled silver catheter (No. 4, at a venture, in this case), he was called upon to make an effort to pass his water and to gradually increase

it to the extent of his power, always under the impressed conviction that he will succeed. After straining thus for a few seconds, and being required to keep up the act until he had permission to relax it, the point of the instrument was gently insinuated into the urethra, and carried on to the stricture. By careful exploration, I was soon satisfied that its point and the slight force I was using were in a line with the axis of the canal, and that the entrance of the stricture had been reached. This I *felt*, for I had contrived to slide the instrument along the floor of the passage to the furthest point I could reach in any part of the canal, and by the sense of a slight grip of its point which was given me on making a simple move of the instrument onward, I was sure the passage had been gained. The patient still keeping up the strain, with a very little more force the catheter passed through with the usual, not always assuring, jerk. It could not, however, be made to enter the bladder, for its course was interrupted by another stricture at the membranous part of the urethra. This I did not attempt to pass, being satisfied that if the instrument could be retained during the night, the remainder of the passage would be easily passed in the course of the morrow, for the catheter would now indirectly act as an expulsor, and therefore keep in check any renewal of action on the part of any counteracting power. The urine passed abundantly during the succeeding night, not *through* the catheter—for it contained some clotted blood, and, if it had not, I should have prevented it by the use of a close-fitting stiletto—but around it; and on my visit the next day, the instrument was passed through with the help of the tip of my forefinger. A severe rigor followed the first effort, which was subdued by a glass of hot brandy-and-water and one scruple of quinine in the course of the next twenty-four hours.

The subsequent treatment has been daily catheterisation, using a larger catheter each day, and allowing it to remain a few hours on each occasion. On the seventh day a No. 8 was easily passed. I need not refer to the watchful care which is always needed in the after-management of such cases.

I have ventured to ask permission to publish this case, trusting that the principle advocated, viz., that of falling back

upon physiological resources as a help in the treatment of severe cases of stricture—might meet with whatever attention it may be thought to deserve.

I may state that I insisted on this method of treating stricture in a paper published in June, 1861; and that, although it called forth but little attention at the time, and I believe less since, I have not failed to employ it in every case requiring it, with invariably the like results. I have also demonstrated it in the course of hospital and private practice, so that it is not entirely without its witnesses.—*The Lancet*.

Treatment of Colic.

Phares' method consists in *inversion*—that is, simply in turning the patient upside-down. Colic of several days duration has thus been relieved in a few minutes. The patient may take the elbow-knee position, or may lie (face down) on the edge of the bed, with his head and shoulders hanging down. Complete inversion, however, is best. The mechanical aid, in giving vent to gases, is, perhaps, the most efficient element in the cure.—*Jour. des Sci. Med*.

A Button-hook in the Bladder and its Spontaneous Emission.

BY H. M. WHEELER, M. D.

On the 21st of April, I was called in consultation to see Mr. B., a young man 21 years of age, and of German extraction. He told the following story: Ten days previously, while at stool, he thought to try the calibre of his urethra, and with this object in view, passed into the meatus a patent button-hook, with an oval handle; the hook, as shown by subsequent measurements, was two and one-half inches in length and seven-sixteenths of an inch in its largest diameter. While in the meatus the hook slipped from his grasp, and passed into the bladder. With the exception of a desire for frequent micturition, the patient had suffered no physical inconvenience until the day on which I saw him. On this day, however,

he was unable to pass his water, and the bladder had been emptied with a catheter by the attending physician.

I passed a number twelve sound into the bladder and readily encountered the foreign body. The case was explained to the father of the patient, and the operation of lithotomy was decided upon, and the day for the performance of the operation was appointed. However, on the day before (that appointed for the operation) the patient in attempting to micturate, *very inconsiderately* passed the hook.

I find a case reported in the London *Lancet* of August 11, 1877, which may be interesting in this connection. This patient was admitted to the Liverpool Royal Infirmary, and was under the care of Reginald Harrison. The report is as follows: "W. B., aged 38, a militiaman, was admitted on May 22, 1877. His statement was to the effect that on the previous night, when under the influence of liquor, a pencil case had been introduced up the urethra by a prostitute in whose company, together with others, he had been. He did not, however, appear to have discovered anything amiss till the following morning, when certain uncomfortable sensations in the region of the bladder made him come to the conclusion that his pencil must be in his bladder. The surgeon of the regiment confirmed his idea by discovering a foreign body about the neck of the bladder, and sent him to the infirmary for treatment. On examination by Mr. Harrison, the foreign body appeared to be lying obliquely in the bladder, and partly within the prostatic portion of the urethra. An attempt was made to remove it by means of Civiale's extractor, but this failing, a lithotrite was passed. The pencil was thus carried on completely within the bladder, where it was first seized transversely by the lithotrite. In this position it was impossible to extract it; however, by gradually turning the lithotrite toward one side, whilst at the same time the pencil was within the blades of the instrument, an end was reached, when the pencil was removed, point foremost, without any further difficulty or damage to the urethra. The patient was placed in bed, and a linseed poultice applied over the bladder. During the afternoon and night he passed urine quite naturally,

slightly tinged with blood, but on the following day he appeared in no respect the worse for what had been done. He was, however, kept in the infirmary until the 24th inst., when he went out on leave, but did not return."

A full-size cut of the pencil-case accompanies the above description, and by measurement I find that the case was three and one-half inches long, and one-fourth of an inch in diameter; thus it was longer than, but not of so great thickness as the button-hook. I know of no other case where so large a body was spontaneously ejected from the male bladder.
—*Physician and Surgeon.*

POISONING.—In one dozen cases of poisoning from the bite of the rattlesnake, Iodine proved curative, given in one or two drop doses of the tincture every hour, according to the severity of the case. In one instance, where the patient was "swollen terribly, mottled spots appearing over the entire body, breathing with great difficulty, and apparently near death," four drops of Iodine were given every hour with entire recovery.
—*Dr. E. F. Brown, in Cincinnati Medical Advance.*

EDITORIALS.

MEDICAL SOCIETIES.

THEIR OBJECT AND A PLEA FOR THEIR MORE THOROUGH ORGANIZATION, AS VIEWED FROM THE STANDPOINT OF ECLECTICISM.

We have received a copy of an address upon the above subject, delivered before the Central Medical Association of Pennsylvania by L. T. Beam, M. D., President. It is a stirring appeal in behalf of organized effort on the part of physicians for the twofold purpose of individual improvement, and to prevent or lessen social suffering. We should like to present the address in full to the readers of THE TIMES, but we have only room for a few extracts:

"What is wanting to effect a more thorough organization of the medical forces in this district? Of course a goodly number

of things, and their enumeration might be a little difficult and tedious. We want and solicit physicians of all schools of medical practice, who cherish liberal views in the profession, to unite and work with us. We want—and it should not be impossible thus to find—a common ground on which physicians of all the varied medical systems extant may meet. We want to call into life and association for mutual improvement the many latent germs that are truly eclectic, which are to be found scattered everywhere beneath a surface of perplexity or hesitation.

“Considering the medical profession in its entirety, while there is a community of aims and endeavors, yet there are diversities of sentiment, a complex compound of individualities to be served and cared for, and the only possible ground of unity which we can have is the recognition of the INDIVIDUAL RIGHT to exercise judgment and opinion in the freest manner possible. Upon the acknowledgment of this principle depends all liberty and progress in the medical profession. Not requiring conformity to arbitrary rules or to a standard of opinion; but, recognizing differences and seeing how much common work they can do, how far they will act together and how far they can contribute to the perfection of each other. What is wanted is a combination which shall recognize all, and shall give encouragement and strength to all who care to act together as to our common needs and defects about which we are all agreed. To effect this, we must care nothing for unity of OPINION, but everything for unity of ACTION. It will not come by giving up your opinion. What we want in our District, and, as well in our National and State Associations, is a combination which shall seek to RECOGNIZE OPINION. It is much too soon to attempt to reconcile it. We yet live in the lowlands of human attainment.

* * * * *

“There has been advancement; and there must be a continual going forward. Truly, the ‘little leaven’ is at work, and who can doubt about the ‘whole lump’ being made better and better? The liberal Medical Associations are doing well, but they must do more. Above all, they must avoid the *caste*

policy of their old conservative neighbors, to insure a healthy growth. Every member must be allowed the utmost freedom in the choice of manner and means; one single rule made absolute, and we split on the same rock that separated us from the old school.

* * * * *

“When we consider, gentlemen, the obligations devolving upon us in our relations to the public in matters of life and death, who of us, in our quiet hours of self-reflection, could merit his own approval in remaining without this Association, or failing to attend its meetings when possible? The day is rapidly drawing near when those communities in which education is fostered will *require* medical men to avail themselves of every means to keep abreast with the advance of one of the most progressive of the sciences. Eventually, the elevation of the standard of medical education, and also, collaterally, the enlightenment and direction of public opinion in regard to the duties, responsibilities and requirements of medical men, will devolve upon medical organizations. Regular attendance upon and participation in the exercises of a medical society, or devoting one's self for a considerable time each year to study in one of our medical centers, comprise the principal means within our reach to keep us abreast with the advances being so rapidly and steadily made in every department of our art. If doing neither, one is either greatly in advance of the rank and file of the profession, in consequence of sheer force of intellect and intuitive perception, or he is doing his patients and his profession culpable injustice. Delinquents can determine for themselves on which horn they will be impaled.

* * * * *

“The people clamor, and not without cause, for a better, safer, pleasanter practice of medicine. One needs but to mingle with them and to read the literature of the day to discover that they are not satisfied with existing things. And, again, our laws are grossly defective as relates to the subject of Public Hygiene, or *preventive medicine*. We not only require the standard of medical education and practice raised, but better sanitary laws and an improved and enlightened

public opinion to enforce their execution. The initiation of both must come from an organized medical profession."

* * * * *

[Organized efforts are especially needed at the present time to secure for our practitioners and our educational institutions impartial legislation. Much has been already accomplished, much more remains to be done. The management of asylums, hospitals and other State institutions should no longer remain in the hands of a sect. Supported by the public funds, their advantages should be free to all.

We can win by united and persistent efforts, and in no other way. Let our societies be better supported.—EDITOR.]

YELLOW FEVER.

At the present writing, the yellow fever is under full headway at Memphis. It is still hoped that this outbreak will not prove to be epidemic, but new cases are hourly reported and the panic-stricken citizens are flying for their lives. Business of all kinds is nearly at a stand-still and the indications are that Memphis will be a deserted city for the next four months. Depopulation seems now to be the only hope, and few will remain in the city except those who have had the fever, those who are already sick with it and those who are unable to get away.

Doubtless we shall now witness another deluge of medical papers upon the subject, and the various plans of treatment will be energetically discussed. All this is eminently proper, but, as far as the present condition of Memphis is concerned, it much resembles the process of locking the stable after the horse has been stolen.

It is the opinion of many that the present outbreak is the result of negligence on the part of the citizens of the ill-fated city in regard to proper sanitary measures, and that the disease might have been stamped out by thorough and systematic disinfection and the prompt removal of filth and garbage from the streets and alleys of the city. Experience has proved

that, in dealing with diseases of this nature, more is to be hoped from the "ounce of *prevention*" than from the sum total of all theories and plans of treatment.

These epidemics, terrible as they are, will have accomplished great good if they serve to educate the people and the medical profession to an appreciation and demand for preventive medicine.

EXCESSIVE TEA-DRINKING.

We have a strong conviction that a large proportion of the nervous and dyspeptic disorders so prevalent in modern times arise wholly or in part from the above cause. All will admit that it is at least a possible cause of such disturbances, and a cause too generally overlooked. Observation has shown that, in moderate doses, the administration of tea is followed by "an elevation of the pulse, increase of respiration, agreeable exhilaration of mind and body, a feeling of contentment and placidity, an increase of physical and intellectual vigor, with no noticeable reaction." These are the physiological effects of moderate doses taken at considerable intervals. Moderate doses taken continuously, however, are followed, sooner or later, by constipation, exalted sensibility, tremulousness, nervousness and lessened vitality.

The immediate effects of an excessive dose are "rapid elevation of pulse, marked increase of respiration to the extent of about one-third, increase of temperature, no period of exhilaration, but immediate and severe headache, dimness of vision, ringing in the ears, dullness and confusion of ideas. Then comes a severe reaction: exhaustion of mind and body, tremulousness and nervousness, and dread of impending harm that cannot be relieved by taking more tea." If these excessive doses are continued, we find a continuance and exaggeration of the above symptoms; also, "extreme sensibility to outside impressions, constipation, diminution of urine and marked influence on the metamorphosis of tissue, as shown by the diminution in the amount of urea."

These "provings," if we may be allowed the expression, point out the possible cause of many obscure pathological conditions often encountered in practice.

We venture the opinion that the ill-advised zeal manifested in the woman's temperance movement would have been more profitably expended in a crusade against the tea-pot.

Dr. J. W. Morton, of New York, has recently made the toxic effects of tea a subject of careful study, both by examining a class of men known as tea-tasters, who habitually take tea in large amounts, and also by experiments performed upon himself. From this study of the drug's action, he has arrived at the following conclusions :

1. That with it, as with any other potent drug, there was a proper and an improper use of it.
2. That, in moderation, it was a mild and pleasant stimulant, followed by no harmful reaction.
3. Its continued and immoderate use led to a very serious group of symptoms, such as headache, vertigo, ringing in the ears, tremulousness, "nervousness," exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, and dyspepsia.
4. The mental symptoms were not to be attributed to dyspepsia.
5. It diminished the amount of urine, and retarded the metamorphosis of tissue.
6. Many of the symptoms of moderate tea-drinkers were such as might occur without a suspicion of the real cause.

SACCHARATED EXTRACTS.

The good old fathers in medicine who were in active practice forty, thirty, or even twenty years ago, can appreciate better than we of the younger generation the great advances that have been made in the manufacture and preparation of medicines. Their shelves and saddle-bags were filled largely with crude drugs, which they had to administer in powder, decoctions, infusions, boluses, etc., all of which necessitated bulky and nauseating doses to the luckless patient. These primitive

forms have been set aside by the concentrated and elegant preparations of the pharmaceutical chemist.

Within the past few years, the active principles of most vegetable remedies have been isolated, fluid and solid extracts have been brought to a good degree of perfection, and we seem to be rapidly approaching a time when we shall be able to administer remedies with mathematical precision. There are, however, some grave objections to the more common of the modern preparations.

Physicians, generally, complain, and with good reason, of the lack of uniform strength and quality in both fluid and solid extracts. This lack of uniformity, due to a variety of causes which need not be mentioned here, is a serious matter to both doctor and patient. To it may be ascribed much of the deplorable uncertainty in medicine which has culminated in a wide-spread medical skepticism, and it is responsible for the disappointment and chagrin which come far too often to the intelligent and careful prescriber.

Alcohol, as a menstruum and preservative, is open to serious objection. Its volatility accounts for the instability of the more diluted preparations, and the continued administration of it even in small doses is fraught with danger. We need then some other agent to take the place of alcohol as a preservative and vehicle, and there are good grounds for believing that we have such an agent in sugar of milk. While alcohol precipitates pepsin and albuminous matter in the gastric juice, sugar of milk promotes rapid assimilation, does not ferment and is gratefully received by sensitive stomachs.

Preparations of all the more important remedies are now being manufactured in this city, in which sugar of milk is used as the vehicle and preservative, the strength being the same as that of a typical fluid extract. We are giving them a trial, and so far have found them most constant and reliable.

We clip from *The Pharmacist* of June an outline of the process of preparation, with brief mention of their advantages over ordinary fluid extracts:

“Exhaust sixteen troy ounces of a crude drug; evaporate to a solid extract; carefully desiccate and mix same with

sufficient sugar of milk to bring the whole, when powdered, to sixteen troy ounces.

"During the operation, the percentage of solid extract should be noted, and, in the case of the more powerful remedies, an estimation of its alkaloids resorted to.

"The advantages of these extracts over ordinary fluid extracts would appear to be the following :

"They would be of uniform strength, having the quantity of solid extracts and percentage of active principles ascertained and capable of being prescribed with great accuracy and precision.

"In cases where even a small proportion of alcohol would be objectionable, the extracts would be found of the utmost value, the sugar of milk readily helping in the assimilation process.

"The advantages over the ordinary solid extracts are various, and suggest numerous applications, by reason of the minute state of division induced by the trituration of the sugar of milk with the drug.

"1. They are stable at all temperatures and under all conditions ; they will not swell, ferment or waste.

"2. They are always of a uniform and convenient consistence, and are not open to the objection of becoming again solid, as the powdered extracts do.

"3. Their divisibility is always effected instantaneously, which is very desirable, as saving time and insuring accuracy in dispensing."

MORTUARY STATISTICS.

We have received a circular from Francis A. Walker, Superintendent of Census, inclosing a little book, a copy of which has been sent to each practicing physician in the United States whose name and address are known at the Census office. Those who have not received it are requested to send their address to Washington, and they will be immediately supplied with the book. The purpose of the book is that a record may be kept of all deaths during the year—June 1, 1879, to May

31, 1880—at the close of which the register is to be returned to the census office. The book is arranged so that little labor is required to fill out the blanks, and it is to be hoped that this effort to improve the vital statistics of the United States will be appreciated by the profession and receive their careful attention.

Any physician who fails to comply with so reasonable a request made in the interest of humanity, and of the profession as well, will be wholly without excuse.

SPERMATORRHŒA.

A correspondent writes for the best treatment for the above disease. As the trouble may arise from one or more of various causes, and no two cases are exactly alike, it is difficult, if not impossible, to map out a treatment which will be of general application. We take the opportunity, therefore, to recommend to our correspondent, and to all others who may be interested in the subject, a valuable little work, "Bartholow on Spermatorrhœa," published by William Wood & Co., of New York.

We have found staphysagria, damiana, gelseminum, belladonna and the bromides to be effective agents in the treatment of many forms of the disease. Most of these, with many other agents, are recommended in the work referred to.

WHAT'S IN A NAME?

Our readers will not fail to remember the very able and interesting article upon "The Cure of Hemorrhoids by the Hypodermic Syringe," by Edmund Andrews, A. M., M. D., in the June number of THE MEDICAL TIMES. The following extract from *The Medical Record*, in regard to the article, is of interest, as showing some of the characteristics of two widely-differing classes of men. The writer of the first letter is a typical specimen of the bigoted, self-confident, hypercritical "regular," to whom truth is unsavory if it comes through any but "regular" channels. The writer of the

second letter, although classed with the same school of medicine, manifests the spirit of a true eclectic. Were all physicians like the liberal, truth-loving Prof. Andrews, the mission of Eclecticism would be well nigh accomplished.

QUACKS AND REGULARS.

(To the Editor of *The Medical Record*.)

SIR: The *Record* of May 10 reports Prof. Edmund Andrews' paper on the treatment of hemorrhoids by injection. The Doctor speaks of having corresponded "with a large number of itinerant doctors—many of them the veriest quacks"—on this subject, and has obtained statistics of numerous cases.

The paper describes the treatment—which I will not recapitulate—to have been very successful in the vast majority of cases, and endeavors to prove that we are indebted to quacks for valuable scientific information.

I desire merely to ask if it is customary for "regular" practitioners to compile their statistics of cases from the records of quacks? Yours truly,

SOLON B. STONE, U. S. Army.

FORT BOWER, A. T., June 9, 1879.

Of course we do, Mr. Editor, whenever the quacks present any truth worth studying. We know that some of the brightest discoveries in medicine were made by empirics, and it is our glory that we seize on them and appropriate them to the benefit of mankind.

Here was a body of quacks possessing a new treatment for hemorrhoids. They acquired an enormous reputation, and made their plan sweep the country with all the power of a great popular movement. They made tens of thousands of experiments with such eclat and success, that in whole regions they almost monopolized the treatment of piles. I saw that this immense mass of experiment was too valuable to be lost, and determined to collect the facts, sift the results, and put the whole on record for the study of the profession. Truth is immaculate, no matter whence obtained.

EDMUND ANDREWS, M. D.

No. 6 SIXTEENTH STREET, Chicago.

CORRESPONDENCE.

CONSERVATIVE SURGERY.

MR. EDITOR,—If you will allow me a sufficient space in your journal, I will give some of the reasons why the “Eclectics,” as a rule, cannot boast of their heroic surgical operations. And when they do have to resort to the knife, why their mortification is so great that true surgery failed to restore their patient whole and not maimed for life by the loss of limbs. We can call to mind quite a number of persons who are compelled to go maimed through life that we are just as confident as we can be of anything in the future, that they might have been restored without loss of any important part of the body, had proper surgical skill and time been used, instead of amputation. And, of course, the editors of that particular locality would have been deprived of a *paid* local by the heroic M. D., who had amputated just in time to save the life of Mr. A or B. Two years ago, in July, a farmer ran a nail into his foot, by jumping out of the mow on the barn floor. He was treated by both doctors and neighbors, who all volunteered, as is generally the case in such troubles. They recommended cat-tail, flag-root, black-cat skins, cow manure—fresh, and the Lord only knows the thousand-and-one other remedies that were applied. The man still lived, but by the beginning of winter, four or more months after, his system began to yield to the influences of the injury. He was admonished that amputation was the last resort. A consultation of allopathic physicians so decided. We were called to see him to get our opinion also. The case presented a sad spectacle. The whole foot seemed involved. There was a dark sanious discharge from perhaps half a dozen different places, and some of the metatarsal bones, or fragments of them, partially decayed, were protruding from some of these openings, and new abscesses forming and very painful, besides a general failure of his constitution. Altogether his case assumed a very serious aspect. We knew that if we made a failure our ears would burn for months, as it was in an extra allopathic neighborhood. However,

after very careful examination, we told him if he desired us to treat his case, and would allow time, which might take from six to eighteen months, we would undertake it; and that as he was a young man, 28 years of age, if he lived the usual allotted time a sound foot was quite a consideration, even if it took two years to repair it properly. He consented, and placed himself under our special care and treatment, agreed to leave all other kinds of extra treatment such as has been named or in kindness might be suggested (for it is always through kindness that all this volunteer treatment is suggested, but a very mistaken kindness, we beg leave to say), and follow my suggestions, and take just such medicine and treatment as I might suggest, even to allowing his foot amputated, if I thought it best after treating him awhile.

Treatment.—I gave him internally wine, iron and salicylic acid and rich food, or blood-making food, with also pepsin as the case seemed to demand. The leg to the knee was wonderfully swollen. I mixed as much salt in hog's lard as I could to make it spread on rags; applied these rags from his hip to his ankle about once in four to six hours, and made several deep incisions in various parts of the foot, so as not to divide blood-vessels or disturb nerves, tendons, etc. Applied muriate tinct. iron and tinct. hydrastis, with a little carbolic acid, all full strength, night and morning; syringed out those openings with tinct. lobelia and water, elm water, etc.; poulticed with ground flaxseed, often repeated; and by this kind of general management he got so he could rest at night, and, in a few weeks, he could visit my office, some ten miles from his house, in a carriage. We continued the treatment, and took out quite a number of fragments of bones, having occasionally to make free incisions to get them. The treatment was kept up something like ten months. He is now well, rejoicing in a good, sound foot on each leg; when, if wise counsel had been carried out, he would have been, if he had survived the operation, minus a foot, and Drs. A, B and C would have been praised for their wonderful surgical skill, while I have no public notice, save this article, of the cure of Mr. Galbraith's foot, outside of his neighborhood. Yet should I have failed in the case, as my

medical allopathics desired, I should have had notoriety enough. One of the party told a friend of mine, "Dr. Hole, by the results of that case, did the cause of operative surgery an injury, as it will be more difficult to get the consent of the patients hereafter in such cases, and life may be sacrificed by delay; and it would have been better for the man to have perished under the circumstances." I could give other almost similar cases. True eclectics have the manhood and independence, as well as correct information, to allow them to practice true surgery; which means not cutting off, but assisting the natural resources, so as to restore not only broken, crushed and lacerated flesh, but bones as well. Yours truly,

JAMES M. HOLE, Salem, O.

WHAT IS IT?

PALATINE, ILL., July 10, 1879.

MR. EDITOR: Owing to a busy time in my practice I have been unable to send this article sooner. It is no humbug or big yarn to get up an excitement. What I am to narrate is well authenticated, and is not written for the purpose of bringing my name before the profession further than to get light and information in regard to certain curious facts.

Statement from Patient: About ten years ago, patient felt a bad pain in the right side of her head near the region of the temple; this was followed by profuse discharges from the ear and also from the nose. About two years after, two polypi were removed. After this operation, no perceptible change up to three years ago, when there commenced a sort of a buzzing in the right temporal region. One day whilst using the nasal douche, several flies were washed out of the nasal cavity. This was repeated several times during the last three years. June 23, 1879, about daylight, the patient attempted to blow the nose, and with some difficulty secured the specimen I send you. At the present writing, the patient claims to be no better, and still hears the bad sound. I have a specimen of the flies which came from the nasal sinus some two months prior

to the escape of the worm. I will send the same in this letter for examination. It is a singular fact that the fly will make its appearance in midwinter whilst the patient is in the act of sneezing, and fly about the room. This statement I am able to vouch for upon my honor as a medical man. I have been acquainted seven years with the lady, Mrs. Mary Downing, aged 48 years, mother of six children, and resident of Cook County, Ill., for thirty-one years. To all appearances, she is enjoying very good health. Please give this your attention for the benefit of those who are treating this loathsome disease—catarrh.

Very respectfully,

DR. A. N. SHEFFNER.

PALATINE, Ill.

[The specimen referred to is a worm about two inches long, of the order *Myriapoda*. The fly resembles a mosquito, or more nearly a large gnat. It is certainly remarkable that living flies should be expelled from the head in this way. Will some of our readers venture an explanation?—EDITOR.]

BOOK NOTICES.

POCKET THERAPEUTICS AND DOSE-BOOK; With Classification and Explanation of Action of Medicines; Minimum and Maximum Doses in Troy Weights, with their equivalents in the Metric Weights; Index and Definition of Diseases, with Appropriate Remedies; Genitive Endings of all Medicines given in Italics; Index of Common and Pharmaceutical names; Classification of Symptoms; Poisons and their Antidotes; Useful hints to the prescriber. By MORSE STEWART, JR., B. A., M. D. Second edition. Revised and enlarged. Detroit, Mich.: George D. Stewart, 1879.

The first edition of this little work, which was issued some time during last year, was well received, although it bore evidence of hasty preparation and careless proof-reading. The edition now before us shows a great improvement, and is the most perfect work of the kind that has come to our notice. The book has been enlarged to more than twice its original size by the addition of valuable matter, such as "Formulas and Doses of Hypodermic Medication," "Doses for Inhalation,"

"Table of Solubility," "Incompatibles and Antagonists," etc. To the student and "rusty" practitioner, it will prove a most timely and useful companion.

MANUAL OF THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY. By STEPHEN SMITH, A. M., M. D., Surgeon to Bellevue and St. Vincent Hospitals, New York. Boston: Houghton, Osgood & Co., 1879.

Several new works upon surgery have been brought to our notice within the past few months. Most of them have been works of great merit, and will form valuable additions to any medical library. But after a careful examination of Dr. Stephen Smith's work, we are convinced that for practical every-day use it is unsurpassed.

One of the most conspicuous features of the book, is its explicitness in regard to details. The little points in regard to surgical operations, too often left unnoticed, are very carefully explained. On this account, the work will be a favorite with medical students and young surgeons.

The author has striven to embody, in this treatise, the teachings of recognized authorities upon every subject, and has also drawn from his own varied practice and many years of experience. The result is most satisfactory. Ample illustrations form an important feature of the work.

DISEASES OF THE INTESTINES AND PERITONEUM. By JOHN SYER BRISTOWE, M. D., J. R. WARDELL, M. D., J. W. BIGGIE, M. D., S. O. HABERSHON, M. D., T. B. CURLING, F. R. S., and W. H. RANSOM, M. D. New York: William Wood & Co., 1879.

This volume is one of the series of Wood's Library of Standard Medical Authors, and comes very seasonably, at a time when the diseases of which it treats are very prevalent. It is composed of nineteen monographs by the six authors named, all well written and illustrated by reports of cases.

AMERICAN NERVOUSNESS; Its Philosophy and Treatment. By GEORGE M. BEARD, M. D., New York, (An address delivered before the Baltimore Medical and Chirurgical Society, Feb. 12, 1879.) Reprint from Virginia Medical Monthly, July, 1879. Richmond: J. W. Fergusson & Son, Printers, 1879.

A most valuable little pamphlet, and one that should be read by every member of the profession in this country. If we have room, it will appear in the next issue of our journal.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

VOL. XI. CHICAGO, SEPTEMBER, 1879. No. 6.

ORIGINAL COMMUNICATIONS.

[xxxiii.] /

A CASE OF OVARIOTOMY.

PROF. A. L. CLARK, M. D.

Some one has, in effect, said that cases of ovariectomy were now becoming so frequent as to be hardly worth reporting.

The following case, however, presents some features of rarity which will be noted by the reader, and at least the rare merit among reported cases of being unsuccessful in saving life.

July 29, I was called to see Mrs. B., aged forty-five, in consultation with Dr. Tyrrell, of Elgin. She had for some months suffered from some gastric disturbances, and more or less from pain in the region of the left ovary. Two months previous to my visit, she suspected herself growing larger, but attributed it to the accumulation of fat. Not, however, until July 4 had she become alarmed, at which time Dr. Tyrrell examined her, and pronounced the enlargement due to the formation of an ovarian cyst.

From this time on she increased rapidly in size, and at the time of my first visit was troubled with considerable dyspnoea, prostration, no particular pain, and the pulse ranged from 100 to 115 per minute. The abdominal enlargement was quite uniform, largest upon the left side—measurement showing the distance from the left anterior superior iliac process to the umbilicus to be fifteen inches, while the same

measurement for the right side was scarcely twelve inches. The umbilicus was midway between the ensiform cartilage and the symphysis pubis. Fluctuation was not complete or satisfactory in its evidence; percussion showed dullness over the entire umbilical region, with resonance in both right and left lumbar regions posteriorly, and a triangular area of resonance, whose apex was two inches above the umbilicus, the base upward and inclining to the left side.

With a hypodermic syringe I succeeded, with difficulty, in withdrawing one or two drops of semi-fluid gelatinous substance. Diagnosis; multilocular ovarian cyst; prognosis extremely unfavorable.

As the only possible means of saving life seemed to lie in an early operation, it was advised, and accordingly undertaken on the second day following, with the efficient assistance of Drs. Tyrrell, Bennett, Burlingame and Weld; Dr. Collins, a brother of the patient, being also present.

The cyst was exposed by an incision five inches in length, and a Spencer Wells trocar and canula introduced, but no fluid came out. Removing the canula, a gelatinous mass appeared at the point of insertion, which showed, however, no inclination to pass out, even after the aperture in the cyst had been with the knife enlarged to a length of four inches.

While the assistants held the walls of the cyst closely in apposition with the abdominal parietes, I commenced scooping the mass out with the hand. Numerous thin membranous walls divided the main cyst into compartments, holding from a gill to two or more quarts; and one large mass was lifted out of such firm consistence, that, though weighing from two and a half to three pounds, it maintained its shape like a large piece of amber-colored calves-foot jelly.

In this way, some two-thirds of a common wooden pailful of the contents were removed without accident, and the operation bid fair to prove successful, until I proceeded to remove the cyst, whose attachments were slight, and the small intestines being exposed to view were seen to be red, inflamed and presenting throughout a granulated appearance. The cause soon became evident. Some of the posterior cysts had

ruptured, discharging three or four quarts of their contents into the peritoneal cavity.

Upon removing the sac which was attached to the left ovary, involving the fallopian tube, a similar and somewhat smaller one was found to be attached to the right ovary, which was removed in the same manner, the pedicles of each being ligated.

The patient rallied well from the operation, but after twenty-four hours began failing, and died thirty-seven hours after the completion of the operation.

Five days previous to the operation, the patient became cramped while taking a hip-bath in a tub too small, and as she rapidly failed from that time it was thought that rupture of the cyst took place at that time. It is remarkable, however, that such extensive inflammatory action should have been almost painless, and I can but regret that the temperature was not particularly observed previous to the operation, as a means of ascertaining clinically whether the presence of this inflammation would have been thus foreshadowed. In the rapidity of growth and firm gelatiniform character of contents, this was the most remarkable ovarian growth I have ever seen.

[XXXIV.]

ARTHRITIS.

BY PROF. MILTON JAY, M. D.

But few, if any, diseases within the scope of surgery will demand more skill and surgical knowledge to successfully treat than the various inflammatory diseases belonging to the joints. There is an inherent dread among practitioners generally of having anything to do with an injury or disease of a joint. In the minds of many, the joint-structures must not be interfered with under any consideration; but, thanks to conservative surgery, we do not now hesitate to lay open a joint and expose its *internal arrangement* whenever it becomes necessary in order to save a limb; and the result is, many a limb has been saved that otherwise must have been sacrificed. The same is true of *injuries* of joints, or wounds penetrating the joint-structures, as compound dislocations. We think a compound

dislocation but little, if any, more serious as to the final recovery of the limb than a compound fracture. It must be remembered that various and complicated are the structures composing the joints, of synovial membrane, cartilage, ligament, bone and capsule, or investing fibrous expansion. In any of these structures disease may primarily begin, though eventually the morbid action may spread until all the structures of the joint are involved.

Inflammation of the *synovial* membrane, the most common perhaps of all the articular affections, may be acute, subacute or chronic. Unless it be traumatic, synovitis usually results from exposure to cold. Especially is this the case in rheumatic or syphilitic constitutions. Very early in the inflammatory stage, this membrane loses its satin polish, its vascularity is increased, and the synovia is increased in quantity, and becomes thin and serous, and, after a time, intermixed with plastic matters. If this condition of things be not checked, the synovial membrane becomes distended with the effused fluids of various chemical ingredients, disintegrating and destructive in their character. The symptoms are pain and heat of the joint, with distention and fluctuation. As this distention continues destruction of tissue increases as the inflammatory process continues, until in the subacute or chronic stage we have either hydrarthrosis or the formation of pus within the joint, which, if allowed to remain, may result in the establishing of a pyæmic condition. Not to dwell on the treatment as generally recommended, my rule has been to empty the distended synovial sac of its contents, let its consistency be what it may, whether synovia or pus, or a general admixture of broken-down and worn-out tissue. I can see nothing to be gained by allowing such fluids to remain pent up. It must be a source of local irritation, if not of constitutional contamination. For withdrawing the fluid, I prefer the *aspirator*; if that be not at hand use the hypodermic syringe; in cases where the abscess is diffusive, lay the joint open; give free vent to the pus, but empty the sac of its contents, and give the joint rest. In acute cases this will often end the disease; in chronic cases where pus has formed, and partial

destruction of the joint structures have taken place, it is sometimes, necessary to inject some chlorinated wash or weak solution of iodine; after allowing it to remain a short time, remove the fluid from the joint, and very soon a healthy action will be set up in the joint, and not only the limb but the joint saved. Of course, constitutional treatment is all important, and should not be neglected; but constitutional treatment alone will not save the patient, *joint* and *limb*. Some five years ago, I treated a young man, aged twenty-three years (of a scrofulous diathesis), for inflammatory rheumatism of knee joint; there was effusion and great distention of the joint, great pain, heat and suffering, fluctuation, and all signs indicative of the presence of fluid, but I continued to treat my patient with all the *specifics*, and he continued to suffer, until at the end of two months it was very evident to me that something must be done. I was satisfied that there was not only a fluid there, but that there was pus, and several ounces of it. If it had not been in a *joint*, I should unquestionably have removed it several days previous. Why not remove it from the joint? I could see no good reason. With the aspirator I removed eight ounces of ichorous pus, injected a weak solution of iodine (one part to eight of water), removing that in a few moments. My patient made a safe recovery; contrary to general rules for operating, this patient had inflammation of the joint at the time of operating. Another case: A lady aged thirty-five, traumatic inflammation of ankle joint from a sprain. She suffered severely and without intermission; joint continued to swell, with increase of synovia, until at the end of a fortnight, after having used fomentation and applications of liniment, all to no purpose, I was bold from the success of my former operation, so with aspirator I removed six ounces of synovia and water; injected a small amount of chlorinated wash, with a few drops of tincture aconite, allowing it to remain only a few moments. After this the pain and suffering ceased, and she had but little further trouble. Since that time I have withdrawn fluids of various consistency from the different joints of the extremities, whenever I could not succeed in their removal by other means in a reasonable

length of time, and generally with the happiest of results. In one case, I had partial ankylosis of the elbow joint following the operation; don't know whether such would have been the case if I had not operated, but presume it would have been still worse. But not to dwell at greater length on the subject of synovites, there are other forms of *arthritis*, although in whatever structure the disease may commence, sooner or later the synovial membrane becomes implicated. Diseased action is very seldom primarily set up in the *ligaments* of the joint; yet it certainly does occasionally occur. These structures often become elongated, softened and destroyed as a consequence of other forms of articular disease.

The inflammatory action may commence in the *fibrous capsule* of the joint; in these cases inflammation soon runs into suppuration and slough of this structure, which, if not speedily arrested, will involve the internal structures of the joint. Although in some instances this form of the disease gives rise to deposits external to the articulation, causing hypertrophy of the areolar structures, resulting oftentimes in the formation of bony layers. And again, *arthritic* disease may be the result of periosteal inflammation of the shaft of one of the long bones extending to the epiphysis, and thus run on to destructive action in the terminal articulations. Very often *arthritic* disease is a result of a morbid condition of the articular ends of the long or of those short bones that enter into the formation of the joint. The incrusting cartilage becomes detached, the joint destroyed, and tuberculous infiltration takes place in the bone, which condition will generally demand a removal of the articular ends of the bone; and, in case of the short bones, the removal of the entire bone. Resection or removal of bones should not (as a rule) be resorted to during active inflammation; particularly is this the case if there be a tuberculous deposit in the bony structure. In excision of the articular ends of bone, or of the removal of the entire bone, the great desideratum is to save, if possible, the periosteum, hoping that from this membrane new bone may be formed. We read of sub-periosteal resection of bones. No man can dissect the periosteum from a healthy joint, and

resect the joint after the periosteum has been removed; and in every case the operation will be a failure. No man can remove the periosteum so well and so effectually as inflammation does; consequently, in diseases of the bones we must have patience. Wait until the periosteum separates from the bone, then the diseased bone can be removed. A new bone may then be formed by the periosteum. A bone covered by the periosteum should not be removed; and when resections have been performed in such cases, they have proved to be failures. Should an articulation be diseased without the bone being implicated, then open the joint, remove the articulating surfaces, but do not disturb the periosteum of a healthy bone, and never resect anything except the articulating surface.

[xxxv.]

CATARACT.

BY PROF. HENRY OLIN, M. D.

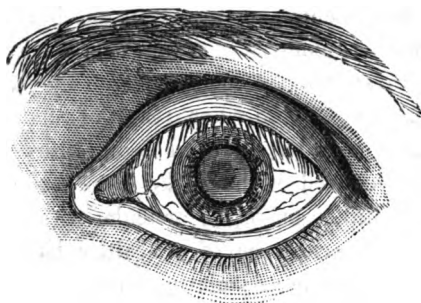
Cataract depends upon the loss of transparency of the crystalline body or its capsule, and may be divided into *lenticular*, *capsular*, *capsulo-lenticular* and *spurious*. The crystalline lens possesses, in its normal state, the highest degree of transparency and absence of color. It is far more complex in its structure than at first sight would appear; and its anatomical relations, both in a surgical and physiological sense, demand attentive consideration on the part of those who wish to acquire accuracy of diagnosis and dexterity in operation.

It is well known that the lens and its capsule (in the adult) is a non-vascular structure, no trace of blood-vessels having been demonstrated in the healthy adult lens or its membranous investment. Hence, as it is undeniably a living structure, it can only derive its nutrition from contiguous parts, and is therefore affected directly or indirectly by congestions or inflammations of the choroid, ciliary body, iris and retina.

As a non-vascular body, it is necessarily of low vitality, and, consequently, liable to derangement from constitutional diseases affecting the circulation.

The frequency of cataract in old persons is probably due to this cause. Cataract not infrequently occurs in persons shortly

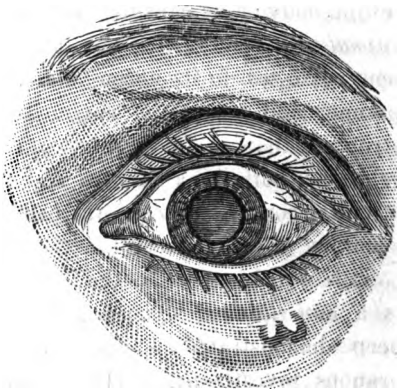
past the middle period in life, especially in females and those of inactive habits, as one of the results of venous congestion; but it also presents itself at all periods of life, for children are born with it; we meet with it in youth, early adult life, but ever increasingly as age advances.



No. 1.—Lenticular Cataract, with Soft Circumference.

complex mechanism.

I state fearlessly, that whenever opacity has fully occurred in the lens, as shall be unequivocally determined, though it may be slow in progress, or even arrested for a time, it will never recover its former pellucid state. No medical treatment, no improvement of the general health, will restore the lens to its original transparency. It is necessary to state this firmly, because patients have been again and again deluded by glowing announcements of the cure of cataract without operation. Innumerable specifics have been put before the public, holding out the inducement that cures could readily be effected, and after the patient had squandered his time and money, he would awake to the fact that he had been imposed upon by some heartless charlatan. The time thus consumed robs the patient not infrequently of the chances of success by operation, when they have become blind by the further progress of the disease.

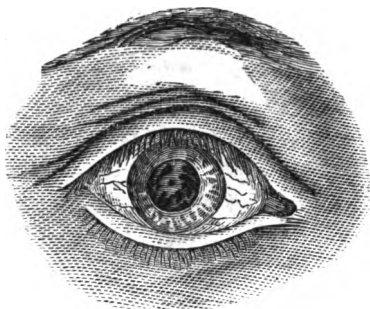


No. 2.—Hard Cataract in which the Opacity is but recently completed.

It cannot be denied that when cataract has undeniably and fully formed, the only means of cure is an operation. Those instances in which relief has been given for a time have been, for the most part, benefited by one or other of our means of dilating the pupil, while some have been, from the first, simple opacities of the cornea that occasionally, in ignorance, and often by design, have been denominated cases of more or less developed cataract.

However certain it may be that opacity of the crystalline lens is a defect of its healthy and normal nutrition, it is by no means easy

to say what are the causes of this disease in all cases. One point, however, is clear, viz., that if a healthy lens be accidentally wounded, or if its capsule only have been opened by the puncture of a sharp instrument, it speedily becomes opaque, and constitutes what is then denominated traumatic cataract. If, however, the wound in the capsule is slight, and it heal



No. 3.—Capsular Cataract.

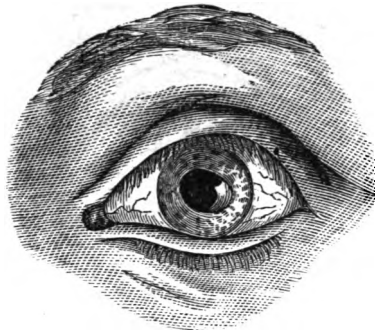
again quickly, the opacity may not extend beyond an opaque spot in the site of the wound. A sudden blow or concussion will sometimes give rise to the formation of cataract, without rupture of the capsule of the lens, and it is then probable that the nutrition is interrupted by some displacement of the natural relations of the cap-



No. 4.—Glaucoma, with Glaucomatous Cataract. A point of adhesion of the Iris to capsule of lens, showing previous inflammatory action.

sule with the vitreous body, or with the canal of Petit. It sometimes happens that the lens, with its capsule entire, is dislocated into the anterior chamber, and may there remain for some time in a transparent state, but unless it is extracted,

it will, sooner or later, become opaque. I have seen an instance where a dislocated lens and capsule floated about in the anterior chamber for a number of years, the patient refusing to have it extracted, on account of fear of the operation. Such an accident is liable at any time to set up inflammation of the iris and ciliary body, and thus endanger

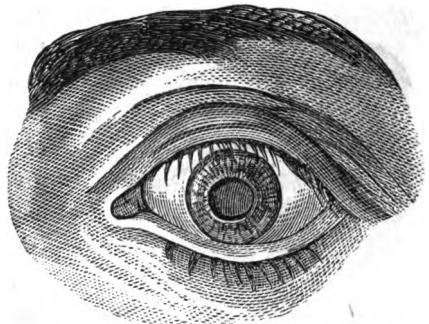


No. 5.—Capsular Cataract, after extraction.

the uninjured eye, by pressure upon the iris, exciting *irido-choroiditis*, *descemetitis*, *aquo-capsulitis* and *irido-cyclitis*. Extraction of the lens, in all such cases, is advisable in the outset, as nothing can be gained by letting it alone, and much trouble may be averted where prompt action is practiced.

The normal transparency of the lens, therefore, appears to depend upon its capsule, and its nutrition is by endosmosis; but it is essential, also, that the vascular structures of its immediate neighborhood should duly perform their office. We see in cases of long-continued acute or chronic inflammation of the choroid, iris and ciliary body, the nutrition of the lens interrupted, and finally becomes opaque. Glaucomatous cataract is evidence of this process, as also, those cataracts that follow chronic congestion of the cho-

roid and iris. In common iritis, if effusions of lymph have been poured out, rendering the anterior capsule of the lens opaque, we not infrequently find, in addition to the closed pupil and capsular opacity, that the lens at length loses its transparency, and spurious or inflammatory cataract is the



No. 6.—Soft Lenticular Cataract.

roid and iris. In common iritis, if effusions of lymph have been poured out, rendering the anterior capsule of the lens opaque, we not infrequently find, in addition to the closed pupil and capsular opacity, that the lens at length loses its transparency, and spurious or inflammatory cataract is the

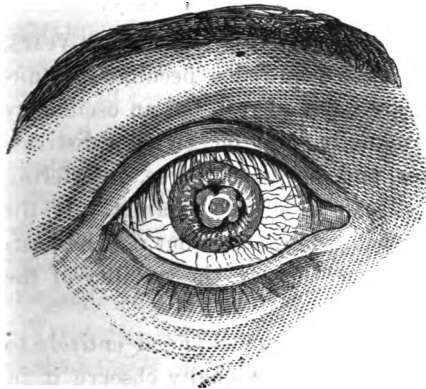
result. Thus, in whatever way the healthy state of the neighboring capillary vessels become altered, the process by which the lens is kept in its proper transparent condition is often interrupted, and cataract supervenes.

I am of opinion that in all conditions where cataract forms, there is more or less inflammatory action, although it may be of such a low degree that the patient will not realize it. Yet, if we carefully examine the vascular system of the eye, we shall always, while the cataract is progressing, find more or less congestion. In

those cases of congenital opacity of the lens, or its capsule, not infrequently met with, in which partial vision exists for a considerable length of time, or during a lifetime, there appears to



No. 7.—Glaucoma, with Cataract.



No. 8.—Cataract, with adhesions of the Iris to the Capsule of Lens. The above cut represents quite extensive adhesion of the Iris to Capsule of Lens, showing that at some time in progress of the disease considerable inflammation existed.

be an arrest of development at a period, varying in different cases, anterior to the birth of the child; for, if we see the patient for the first time, in youth or early manhood, we find on dilating the pupil that the lens is not more than two-thirds its natural bulk; that, in fact, a clear ring of black

may be seen between the pupillary margin of the iris and the circumference of the opaque lens. Tolerable vision is restored by this means, and continues as long as the atropia exerts its usual power.

It is more usual, however, to find congenital cataract more dense than those cases of arrested development, and the capsule usually participates in the opacity. Shortly after birth, the mother, finding the child not taking the usual notice of objects, or of bright lights, or perhaps observing a peculiar rolling or oscillating movement of the eyes, detects a white spot where the black pupil ought to exist. The surgeon subsequently confirms her fears by announcing that the child has been born blind with congenital cataract. If steps be not taken to remove this defect early in life by operation, changes go on that ultimately produce considerable embarrassment in the future treatment. The lens not only does not increase with the rest of the organ, as it unquestionably would were its nutrition or vitality not arrested, but it wastes; the lenticular mass of the cataract becomes absorbed gradually; the anterior and posterior surfaces of the capsule become approximated, and, if the operation be delayed until the twelfth or fourteenth year, it is not unusual to find little more than a tough, unyielding and opaque membrane inclosing some few opaque debris of the former lens.

When the operation has been delayed only for a few years, we observe that the globes have acquired a peculiar involuntary motion; in fact, they are never at rest, but an oscillatory or rolling movement is perpetually going on, giving a distressing appearance to the eyes, and, in some degree, interfering with good vision after the removal of the cataract. If the sight be restored early, this habit disappears, but if it be postponed until after the eighth or tenth year, the stability of the eyes is seldom entirely regained.

This oscillation of the eye-ball is not confined entirely to cases of congenital cataract, for we occasionally observe it in children whose sight is otherwise good, and in whom no defect of lens ever existed. The patient himself is generally unconscious of the motion, and instances occur in which the sight is apparently good. In true soft cataract we generally find the lens of a milky-white color, with just sufficient translucency to indicate by a more opaque white color that the center, or nucleus of the lens, is denser than the periphery.

When the pupil is well dilated with atropia, the margin of the lens is of a more bluish-white color, showing its greater degree of thinness; the opacity may therefore be said to increase from the circumference of the lens to its center, both because of its greater density and because of the increased thickness between its two poles.

It sometimes happens that the lens becomes more bulky than natural, and appears to press against the posterior surface of the iris, causing it to protrude into the anterior chamber. In this case the lens is unusually soft, and requires more than usual care in operation, lest by opening the capsule too freely the body of the lens becomes displaced, or makes, by its swelling, injurious pressure upon the iris.

Fluid cataract is met with at all ages, but is a somewhat rare species.

In July, 1875, I operated on Cora B. Cook, of Magnolia, Wis., for fluid cataract, by division of the capsule; the fluid, which was of a milky-white color, commingling with the aqueous, and in a very few moments becoming almost as transparent as the aqueous itself. This child could, before the operation, barely see to go about, but now, with the aid of glasses, reads ordinary print. In the above case, if the retina had been perfect, the result would have been still better.

Fluid cataract is seldom extracted, and when it is may be accompanied by an evacuation of the vitreous humor, yet no inflammation may succeed the operation, and excellent vision result. I think from my own experience that fluid cataract is dependent upon more extensive disease of the humors than in other and more common cases of opaque lenses.

Traumatic cataract is always of a soft character. Wounds of the capsule by thorns, or punctures by needles, awls, or in any other way, even when little or no general disturbance is set up, almost invariably lead to more or less opacity of the crystalline lens.

If the wound that produces cataract does not suffice to produce absorption of the lens, it should be treated as soft cataract, in general, by a division of the anterior capsule and breaking up of the cataractuous mass. This should be done

without much delay, as it frequently happens that the iris becomes adherent to the capsule of the lens, rendering the operation more difficult of execution.

The most common form of cataract met with by the surgeon is that denominated *hard cataract*, a condition in which the lens assumes a tint varying from an amber-yellow to a brownish-yellow, and, in some instances, to a dark sepia, or even mahogany-brown; indeed, more rarely still, it becomes so dark as to be very difficult to detect it at all, without the use of oblique illumination, or the ophthalmoscope.

In persons about fifty years of age, the cataract is compounded of a hard or yellow nucleus, and softer periphery, in which case the surface appears of a semi-transparent gray color, showing the deeper-seated and deeper-colored nucleus through the various parts of the lameller structure.

Hard cataract is of slower growth than the other varieties, and is sometimes two or even three years before coming to maturity, or, in other words, before opacity is complete. The opacity may and generally does begin in the center of the lens, or simultaneously in the nucleus and periphery; and hence, in order to clearly diagnose it in its earlier stages, the pupil should be widely dilated, that we may fully explore its whole surface before an opinion is given.

Since the discovery of the *ophthalmoscope*, we are no longer in the dark in regard to the diagnosis of *intra-ocular* diseases, but can now state with certainty the nature of the case, and the probable chances of a case.

In conclusion of this article, I will briefly give the mode of operation for extraction of the lens, which, though difficult of execution, and attended by many dangers, yet the success of which far exceeds any other operation that has yet been devised. It is not surprising that the chances of a successful operation for cataract should diminish with advancing years. The older the patient, the more the function of his eye must fall short of the power to resist operation, the less speedy and complete is the recovery, and the more unfavorable are the results. In all cases where a low form of inflammation exists in the ciliary body, with congestion of the

ciliary vessels, the operation should be postponed until the inflammatory action could be entirely reduced, as the dangers in operating at such a time are far greater.

The *knife* which I use in the operation is one inch and one-eighth on its cutting-blade, and tapers to a very fine point ; the width of the blade at its widest point being one-eighth of an inch.

LOCALITY OF THE SECTION.

The section should be made in the cornea, the knife entering on a parallel line with the upper third of the pupil, and passing out at the opposite side ; then, with a gentle sawing motion, the blade should be carried upward until within one line of the periphery of the cornea, when it should be turned upon its back, so that the upper portion of the section will be linear, instead of semi-lunar. It will sometimes happen that the section will be either too large or too small, and of these two errors the latter is infinitely the worse. The danger of too small a section is fracture of the lens, and dislocation into the vitreous, bruising the iris and cornea in an attempt to enlarge it, thus setting up an inflammation that may result in the loss of the organ.

DIVISION OF THE CAPSULE.

The second step in the operation is the division of the capsule of the lens. I know of no operator except myself that divides the capsule of the lens in the second step, and for so doing I will give the following reasons :

1. The danger of a rupture of the hyalid membrane is not so great, as the iris is a guide to the cystotome.

2. The anterior chamber is free from blood (which is not always the case where the iridectomy is made first.)

3. We have a perfectly transparent field to work in, which is of the greatest importance to the operator.

It is well known by all ophthalmic surgeons that hemorrhage frequently follows iridectomy, thus filling the anterior chamber with blood, and totally obscuring the field of operation. This either arrests the operation, or greatly endangers the eye by its further continuation. If the upper portion of

the iris be bruised by the cystotome, it will do no harm, as that section of the iris is removed by the iridectomy.

THE IRIDECTOMY.

But little need be said of the third step, or iridectomy. If the iris has not already prolapsed through the wound, we may pass a curved iris-forceps into the anterior chamber, and carefully draw it out and cut out a large section, care being taken that the iris be not incarcerated in the corners of the wound. It is of the greatest importance that the iris-scissors are sharp, as iritis is liable to follow bruising that tissue.

EXTRACTION OF THE LENS.

The conjunctiva should be seized just below the cornea ; and while the posterior flap of incision is depressed with the cataract-spoon, a gentle pressure inward and upward with the forceps will cause the lens to present itself at the opening, and by a careful manipulation with the spoon the lens, with its cortical substance, will pass through the opening.

If the iris is incarcerated at the corners of the incision, we may now carefully push it back into the anterior chamber, and the operation is finished. I usually put on a wet compress, and keep the patient quiet from four to seven days.

[XXXVI.]

TREATMENT OF SPERMATORRHOEA.

BY E. F. RUSH, M. D.

The very first and most important thing to do is to impress the patient with a belief in your power to effect a cure of his disease if he will but follow directions. Obtain his confidence and allay his fears and anxieties. Patients of this class always have two "stock" questions which they will propound at the earliest opportunity, viz. : "Do you think you can cure me?" and "How long will it take?" Answer the first promptly and decidedly in the affirmative, and, in answer to the second, give him to understand that, to accomplish a permanent cure, he must go through a regular course of treatment, which will vary in length in different cases, but assure him that you will cure him as quickly as is consistent with safety and

permanency. In order to intelligently and successfully treat this difficulty, two distinct classes or forms of the disease must be recognized, as each variety requires treatment peculiar to itself, although occasionally the two forms will be found to be so blended as to require mixed treatment. These two types of spermatorrhœa may be characterized as sthenic and asthenic. In the former, the patient will be found in a plethoric condition, the seminal losses occurring mostly at night, with dreams and vigorous erections; he is troubled with frequent and persistent desires, which cause the various nervous symptoms growing out of unsatisfied sexual passions. In this class or form of the disease, bromide of potassium is indicated, and will prove to be *the* remedy. It may be administered alone, or in combination with such other remedies as may be thought advantageous. The following formula will be found useful :

R Potassii bromide.....	ʒi.
Ext. belladonnæ.....	ʒl.
Ext. gelsemii.....	ʒl. āā ʒi.
Syrp. simple.....	ʒiss.
Aquæ menth. P.....	ʒii.

M. Sig. A teaspoonful four times a day.

The asthenic form of the disease is characterized by anemia and general weakness. The sexual organs are much relaxed; the erections feeble, or altogether wanting; the seminal fluid thin and watery, emissions occurring often and generally without any distinct dream or erection, and, in old cases, such a small but constant loss of semen as to constitute what is known as "diurnal loss," or, to more clearly express the symptom, we might say "a more or less constant leakage of semen." In this form of the disease, the bromides do harm, as they act by diminishing the blood-supply to the erectile organs, consequently they are contra-indicated in cases characterized by debility and feeble erections. Cases of the asthenic type are frequently very persistent, and require skill and patience on the part of the physician. A debilitated condition demands a tonic, and, for this purpose, strychnia should be administered in doses of gr. 1.60 from one to three times

daily. The remedies most useful in the asthenic form are camphor, ergot, belladonna, conium, lupulin, phosphide of zinc and nux vomica (in pill form) phosphoric acid dilute, and Fl. ex. damiana. For example, a typical case of asthenic spermatorrhœa should be treated about as follows :

℞ Ext. damianæ fl ʒij.
 Sig. Half teaspoonful in milk three times daily.
 ℞ Camphoræ gr. xxx.
 Ext. belladonnæ gr. ij.
 Ext. conii gr. xxiv.
 Spts. rect. gr.

M. ft. pil. No. xij. Sig. Two pills at bed time; or, if this should not give satisfaction, continue the damiana in conjunction with the following :

℞ Ergotine (aq. ex.) ʒij.
 Camphoræ ʒi.

M. ft. pil. No. xxx. Sig. Two pills at bed time. In some cases it may be advisable to give, in addition to above, a 3 or 4 grain lupulin pill, or $\frac{1}{2}$ to 1 drachm of the fluid extract of lupulin three times a day.

Proper attention should be paid to regimen and hygiene; the bowels should be regulated and nervousness and mental depression overcome by appropriate remedies, the most useful of which are dilute phosphoric acid, phosphide of zinc and nux vomica. The introduction of a metallic sound into the bladder once or twice a week will produce a highly beneficial result, and, in some extreme cases, complicated with irritable prostate, the daily application of saturated tincture of iodine to the perineum will be found very useful.

[XXXVII.]

GELSEMINUM AND MORPHIA.

BY J. BUNDY, M. D., OAKLAND, CAL.

Having suffered for the past eight months from sciatic neuralgia and a host of other nervous manifestations associated with it, of course every means known to medical skill have been brought to bear in my case, nothing being left unturned

for my relief until I was relieved. One event occurred which elicits this article. After the sciatica had been arrested, I suffered severely from a nervous manifestation simulating chorea, which would make its appearance every afternoon at about 4 o'clock, lasting two or three hours, or until some means were brought to bear for my relief. I was somewhat emaciated, pale, weak and anæmic, the result of my long suffering, with but little appetite and sleepless nights. My physician was giving me quinine and iron as a tonic, gelseminum and bromide of potass. for the nervous condition which I have related. The paroxysms were not of pain, but an uneasy, restless, fidgety feeling, which would attain to that of actual frenzy, seeming as though I should fly, being unable to keep quiet for a moment. The gelseminum I had taken influenced me but slightly, so far as its physiological action is concerned, and less so so far as my condition went. On one afternoon, as was usual, the paroxysm came on with greater force, and gave my wife so much alarm that she sent for the doctor at once, who hastily made his appearance, and at once gave me five drops of the fluid extract of gelseminum. So terrible were my feelings that I begged him to give me a dose of morphia also, that I might obtain relief at once, if possible. He objected to it, but my supplications were so strong he yielded, and gave me one-fourth grain, giving it about ten minutes after I had taken the gelseminum. The gelseminum affected me in twenty minutes, producing pretty thorough relaxation and diplopia, when I became comparatively easy and quiet. At this time the point of my tongue became paralyzed, and within ten minutes more my entire tongue, together with the muscles of my throat, became so paralyzed that I could neither swallow nor articulate audibly; and it soon extended to my face, and lastly to the orbicularis oris muscle. The paralysis was so complete that I had no use whatever of the muscles named, and I became much alarmed, fearing it might extend to the respiratory muscles, and that suffocation would ensue. The doctor himself was much alarmed, and sent for his battery and another physician. He gave me pretty strong doses of tinct. capsicum (or poured it

into my mouth) which found its way down, and, in less than ten minutes after, the paralysis was entirely relieved, and I was exceedingly comfortable. The potass. and gelseminum I had been taking were so combined as to give me three grains of the potass. and five drops of gelseminum to each teaspoonful, of which I had taken a teaspoonful four or five times daily.

Question.—Was it the *combination* of the drugs named that produced the paralysis, or was it the *gelseminum*? Have other practitioners ever experienced such a phenomenon from its use? If so, I would like to have them relate their experience. I will also state that I have taken gelseminum many times prior to this, when it relaxed much more thoroughly than at this time, but without any evidence whatever of paralysis.

[XXXVIII].

MEDICAL EDUCATION.

BY S. H. POTTER, M. D.

(Continued from August number, page 227.)

The undue multiplication of medical colleges, abbreviation of college terms, taking of students without proper qualifications to begin the study of medicine, holding of two graduating terms a year, requiring no graded course as other classes of colleges do, the evident inducements held out to students to quickly and cheaply enter into positions of honor (?) and great responsibility, and the almost general graduation of attendants, have inflicted a serious wound upon our profession, which is not likely to be speedily healed. "What chronic wound did ever heal, but by degrees?"

This evil seems to have been rapidly growing within a brief period. When I was a student of medicine, from June, 1833, to September, 1837, the custom of the profession, if not the law, required me to study four years, and recite daily to my preceptor, and take his sworn certificate of my faithful and successful compliance. Armed with such a certificate, I presented myself at college, where six months regular attendance on all the lectures and demonstrations was required for admittance to examinations for graduation. My recollection is very vivid

that I then *felt* that this course of four years and three months was quite too brief for the much I found to learn, even then; although I had to depend wholly on self-earned means through the entire course.

For reliable statistics on the subject of medical education, we are indebted mainly to foreign medical journals, which are of a cosmopolite character, which embrace alike the interests of colleges, students, the profession and the people. Unfortunately, our medical journals are not broad enough in their scope to amply elucidate and protect all these important interests. This radical defect in our medical journalism should be remedied at an early day.

In proportion to population, we have in the United States the same number of medical colleges as Canada: two to one in Great Britain; three to one in Germany, Belgium, Italy, Sweden and Norway; twelve to one in France, Brazil and Austria. Authentic statistics show that we *annually graduate in medicine* one new M. D. to every 15,000 of our inhabitants, and this is the ratio in Canada; one to 18,000 in Great Britain (a large number of these are educated for and go to distant service in "the Queen's broad dominions"); one to 48,000 in France; while only one of 68,000 people graduates for this purpose annually in Germany. Notwithstanding this data our United States are prolific of two doctors to one in Canada, and about three to one in England, etc., as before stated; showing that a large per cent of our would-be doctors are not graduates of any school at all, although the facilities for securing such honors (?) are so available, brief and cheap as well.

It would seem that our *average* medical students give a wide berth to a higher and a more thorough medical education, and that competition does *not* improve the product in this respect. Harvard's classes shrink materially since the new plan has been there adopted of a three-years graded course, and nine-months college year of medical instruction; although she has attained to a venerable age, and has the commanding influence of a large number of cultured *Alumni* distributed throughout the Union, all especially interested in sustaining

their cherished *alma mater*. We are "a fast people," more rapid than wise, since we are impatient to intrude ourselves into positions of great responsibility and importance without due qualifications.

The first annual report to the Governor, of the Illinois State Board of Health furnishes material for thought and candid reflection. The Board was created by a special enactment of the State Legislature. It is composed of representative men of the various modes of practice in Illinois. Our own branch of the profession is ably represented in that body in the person of Prof. A. L. Clark, A. M., M. D., who is made its secretary, and who, it is presumed, was the writer of said report. The law became operative, and the Board was organized in July, 1877. I have the first annual report, of 1878, before me, and the statistics it furnishes are of great public interest. During the first year, that Board examined 336 applicants for license, who before had none to practice medicine, of whom 221, or more than two-thirds of the candidates were rejected for incompetence. Within the brief period of about two years, this Board has sat down upon and quashed 1,200 unqualified practitioners within the State, and necessitated their immediate emigration outside of it, where wholesome protective laws of this nature do *not* prevail. The diplomas of eight medical colleges have been ignored for holding two graduating courses within one year. Six certificates have been annulled for gross unprofessional conduct.

The report ventilates what was a singular condition of medical practice, that an army of incompetents, with and without diplomas or licenses of any kind, were preying upon the people. It gives emphasis to an unpleasant fact, well known before, that very few of the numerous quickly and cheaply made candidates for graduation have ever been rejected by *average* medical colleges of any school of practice, rendering it apparent that the chief aim in running these colleges has been to catch students and get all the money they could, to elongate the list of matriculants and graduates without any proper regard to a judicious curriculum. There are honorable exceptions to this general practice, it is consoling to

know; yet these form exceptions more than the rule, it would seem.

Much has been said and is being written about "respect to private rights," and "men's right to control their own business, personal or incorporated," etc. What moral or legal right has any man or an associated body of men, to pursue a business which is prolific of general evil? *Liberty*, which we justly venerate, does *not*, in its broadest sense, include *license* to do any wrong. Our medical educators have a vast influence for the good or evil of the thousands they annually instruct; they have it in their power to elevate or lower the standard of our great profession.

"Students, like softened wax, with ease will take
Those images which first impressions make:
If these are fair, their lives will all be right;
If dark, they'll cloud them all with shades of night."

Never was reform more needed than in the defects of our system of medical education, and I am glad to be able to know that this is already inaugurated. About one-fourth of the allopathic and homœopathic colleges have recently extended their college terms with a longer course of study, and a very few have adopted a graded course of instruction. Our own branch of the profession has done even better in some essential respects on an average. The "Bennett College of Medicine and Surgery," Chicago, Ill., gives one term annually of six months; the "American Medical College, St. Louis, Mo.," and the "Eclectic Medical College, Cincinnati, Ohio," hold two terms, of five months annually; the "Eclectic Medical College" and the "United States Medical College," in New York City, and the "California Eclectic Medical College," in the vicinity of San Francisco, Cal., hold one term of five months each year. All our colleges require three years' study, two terms of attendance in college and successful examination as to merit before graduation.

This is a sound and sensible reform in the right direction, and it is believed that our appreciative practitioners will most heartily second and sustain our institutions in this commendable work of thus elevating the standard of medical education

so as to make it in all respects equal the best. There is a real demand for thoroughly educated eclectic medical practitioners, and will be an increasing demand for such a long time to come. Armed with our own numerous discoveries and improvements in therapeutics, with our views of the treatment of disease, with a cultured and able fraternity, and our liberal and just code of medical ethics, an enlightened and ever appreciative public opinion will sustain us with all needed patronage. Let each member of our branch of the profession write out and post up the following, or a similar motto:

"A generous ardor boils within my breast,
Eager for action, enemy to rest;
This urges me to fight, and fires my mind
To leave a memorable name behind."

(To be continued.)

[XXXIX.]

CASE IN PRACTICE.

BY J. P. MARSH, M. D.

Miss H., aged seventeen, robust in appearance, of nervo-sanguine temperament, was taken with severe pain in the left ovarian region, July 17, 1879. I was called about 9 o'clock P. M., found patient suffering great pain, and of periodical character, which resembled labor-pain. After making strict inquiry and learning that her menses had been very regular, but rather profuse in quantity, I made an examination per vagina, and found a mass was protruded through the os the size of a pullet's egg. I then formed the opinion I had uterine polypus to contend with. I administered fluid extract ergot (Squibb's) $3\frac{1}{2}$, and repeated in one hour, and soon after giving last dose the polypus was expelled, followed in about five hours by three more nearly the same size, all connected together by connective tissue, and the group suspended by a pedicle the size of a quill. On exploration of the uterus, I found the attachment just within the cavity, at the right marginal border of cervix. Passing the growths through the loop of the ecraseur, I carried it up to the base, and severed the pedicle and brought it away entire. The hemorrhage was

not profuse. I swept the cavity with carbolated oil, and ordered vaginal injections of warm water and table-salt. I saw no indications for drugging, and gave nothing but a little Dover's powder, to induce quietude. Will some brother practitioner give his opinion why those growths were grouped, and the cause of formation.

KIRKWOOD, Ill.

[XL.]

VICARIOUS EXPENDITURE OF NERVE-FORCE.

BY J. T. KENT, M. D., ST. LOUIS, MO.

The occult changes from rheumatic irritations from one locality to another—for example, from one knee-joint to the other—have long been very unsatisfactorily described by the application of the familiar term metastasis. The profession has been quite satisfied by simply being able to name a phenomenon without taking trouble to think of the busy causes underlying such peculiar manifestations.

If a female bleeds from the nose, lungs or bladder, at regular intervals, and fails to menstruate, the term vicarious menstruation is quite satisfactory, and the patient is well satisfied with the profound wisdom of the doctor. Is it possible that retained excreta may produce a temporary neurasthenia of the vaso-motor centers of nerves supplying certain joint-cartilages, and that the simple movement of such neurasthenia to an opposite or adjacent center or cell, could change from the joint of one extremity to the same joint in the opposite extremity?

It would seem quite astonishing should such a condition finally prove to be a cause of the obscure, so-called, rheumatic irritation.

Any depressing influence may act as a cause of local neurasthenia of any nerve-center, centers ganglia or cells, and change a natural excretion, and establish an exit at a different locality by the vicarious expenditure of nerve-force.

Certain crises are innate and appear periodically and are governed by natural forces; but, if such forces are deflected, they may expend themselves on other tissues not always to afford exit to morbid or natural excretions, but to bring about the

necessary expenditure of nerve-force which is evolved normally as to quantity, but deflected, and produces abnormal phenomena. Habit, so-called, frequently creates a vicarious expenditure of nerve-force. Tobacco-chewers emit saliva amounting to excessive abnormality from the peripheral irritation of the chorda tympani by the quid coming in contact with the parotid duct and its sensitive nerves.

The masturbator induces an undue expenditure of nerve-force, not only in venereal organism but from the vegetative center which presides over the testicle during the manufacture of semen. In such cases, semen is created to abnormally by peripheral friction, causing excitation of certain centers to the expense of others. Such peripheral irritations are not so striking as many that work internally. An "over-loaded" stomach demands the expenditure of more nerve-force during the digestive process than other centers can afford to lose, hence the phenomena of indigestion.

In this vicarious expenditure of nerve-force, we see a great variety of unaccountable phenomena. The same kind of force is not always deflected, but a change from motor to sensory, or from vegetative to sensory is often observed. The deficiency of expenditure of nerve-force so necessary to mobility may be manifested in hyperæsthesias; or the lack of nervous energy manifested in anæsthesia may be caused by a vicarious expenditure often observed in spasms, and other exaggerated phenomena of motor centers.

Lesions of conductivity are not unfrequently observed. The inability of axes-cylinders to conduct properly; or the feeble insulativity of medullary tubes may change the current of nerve-force to vicarious channels.

Constipation has often produced, indirectly, eruptions upon the skin, turgescence of brain, cord and liver. Retained integumentary excretions have often suspended the evolution of vegetative nerve-force and heat-producing processes become exaggerated, resulting in fevers, diarrhoeas, effusions and hemorrhages.

Urea retained by diminution of the nerve-force necessary to perpetuate normal function, is soon followed by excitation of.

cerebral vaso-motor supply-centers, the vessels become turgescenced; the sequela is congestion; later, coma. If the establishing of the excretion from the kidneys is brought about early, the vicarious expenditure is arrested before over-stimulation or low vaso-motor paralysis is induced and death is averted. It may generally be noted that any vicarious expenditure of nerve-force is locally destructive, and is followed by general shock to the nerve-centers.

Vicarious menstruation affords most common examples of this unnatural or perverted expenditure. This is most commonly recognized when it is manifested by a metastatic flux. But such is not the only manner of manifestation of this vicarious expenditure. Hysteria, epilepsy, temporary paralysis or paresis (hysterical paralysis), anæsthesias, hyperæsthesias, aphonia, cerebral lesions of function too numerous to mention, diarrhæa, diuresis, pustules upon the face and body, exanthemata; all have appeared as manifestations depending on perverted expenditure of nerve-force during amenorrhœa.

The vegetative centers preside over ovulation, and any shock capable of depressing or temporarily suspending their functionary powers; or any improvement of conductivity of the conductors of the ovarian and uterine nerve-supply, will, as a natural consequence, avert the innate currents to the most accessible conductors.

Then, the failure of any female to flow her usual amount, at her regular time, may come to appear a vicarious expenditure of nerve-force, in any locality, organ or tissue.

The citation of a few reported cases may prove instructive, with a few from my own observation:

A case reported by Dunlap, in 1850: His patient bled from her gums six quarts of blood monthly, at the time when her menstrual nixus should have appeared. Treatment, by cupping, which was resorted to, for pain in her side undoubtedly caused her death, by establishing uncontrollable hemorrhage from the scarifications.

Mrs. H., under my observation, two years since, had a large tumor of her right mammary gland, which I removed by escharotics. Her menses ceased during the operation and healing,

but before the healing had become complete an exudative discharge of uncoagulable blood appeared not very profuse but lasted four days. I suspected a vicarious monthly flux and simply ignored the occurrence. The next month, the ulcer had granulated and was nearly covered with integument, but the exudition began, though, was scanty; the second day, she had a frothy hemorrhage from the lungs, which she spat up in considerable quantity; it did not coagulate. She menstruated from the lungs at regular monthly intervals, for three times, when her natural menstrual nixus appeared and she has since remained well.

Miss R., while suffering from scanty menstrua, had hemorrhage from the bladder periodically, beginning from four to six days previous to her menses. She passed blood only while micturating and with urine, non-coagulable, and in considerable quantity, when, by remedial measures, she improved in general health, her menstrua became abundant, the hemorrhage from the bladder ceased.

Cases closely allied to the above might be enumerated at great length, but the above show the common phenomena quite sufficiently. The fact that plethora is absent in the majority of these cases is ground for the rejection of such a condition as a cause.

This class of patients is sometimes chlorotic, generally feeble and anæmic, yet such conditions are not essential to the perverted expenditure of nerve-force, as sometimes robust and ordinarily strong physical developments suffer from congestions and shocks produced from such causes, but seldom hemorrhages.

The description given in our common text-books of vicarious fluxes is so meager that little if anything can be had by their perusal.

SELECTED.

Staphisagria.

The palmated larkspur has not been used to the extent that its real value demands. It is a prompt remedy in frontal

nervous headache, also neuralgia of the face and front head. In irritability of the bladder, it may be used with prompt effect. In cases of sexual excitement, with nocturnal emissions, staphisagria is one of our most trustworthy remedies. In spermatorrhœa from sexual abuses, alternated with phosphorus it will often give very prompt relief. In impotency from overtaking the sexual powers, this is a very valuable remedy, and may be alternated with damiana. Dose, 5 to 8 drops.—*Medical Brief.*

Remedy in Whooping-Cough.

R	Ammonii picratis.....	0.06 (gr. 1).
	Ammonii muriatis.....	1.25 (gr. 20).
	Pulv. extr. glycyrrh.....	3.75 (3 i).
	Aquæ	q. s. ad 90 (3 fl. 3).

Dose. For a child up to six months, 1 teaspoonful every hour = $\frac{1}{4}$ gr. ammonium picrate; from 1 to 2 years: 2 teaspoonfuls every hour = $\frac{1}{2}$ gr.; from 2 to 5 years: 3 teaspoonfuls every hour = $\frac{3}{4}$ gr.

This mixture was devised by Dr. Dellenbaugh, and the reports of its efficacy have been very favorable. The attacks diminish in severity already after two or three doses, and after a few days the malady had been reduced to symptoms of a simple laryngo-bronchal catarrh.—*Translation in New Remedies.*

Ethylate of Sodium.

Dr. Purdon, of Belfast, finds ethylate of sodium quite specific as remedy for nævus, a case in which he employed it having been cured after four applications. He has also removed by its aid a small patch of epithelial cancer of the lower lip; and three cases of lupus, and one of warty growth affecting the back of the hand were reported to be progressing favorably. The effects as noted in the case of nævus were, 1, removal or absorption of water from the tissus into the ethylate; 2, destructive action as a caustic from the caustic soda

which is formed; 3, coagulation from the alcohol that is produced; 4, prevention of decomposition of the dead organic substances.—*Cincinnati Lancet and Clinic*.

Lactopeptine.

From a private letter from Dr. M. G. Salley, of South Carolina, we extract the following: "I have occasion to test the remedial effects of Lactopeptine almost daily. I find large doses of subnitrate of bismuth, combined with lactopeptine, the best and surest remedy in the summer diarrhoeas of children. They are safe remedies, and may be used in conjunction with many others, but I prefer to use them alone or, occasionally, with opium."—*Maryland Medical Journal*.

The Cure of Hydrocele.

The contents of the sac are first to be evacuated in the usual way, after which the scrotum should be placed on any hard smooth surface, such as the corner of the table, and the opposite surfaces of the tunica vaginalis rubbed together until a sufficient amount of inflammation is caused to stimulate absorption adequately in that membrane. By judiciously varying the amount of force with which the friction is applied, and the time it is continued, any desirable degree of irritation can be produced in the diseased membrane, from the slightest tenderness to its total disorganization, and that by a few minutes' work. No amount of experience will enable the surgeon to predict just how much irritation should be caused to effect a cure in any given case. In this, as in the treatment by injection, a very slight inflammation of the tunica vaginalis will sometimes effect a cure. In other cases, a much greater degree of consecutive irritation fails. The patient should be closely observed, and, if any fluid is detected accumulating in the sac, it is a signal that more vigorous friction should be at once applied. The advantages accruing to the sufferer from the mode here advocated over any other with which I am acquainted, are worthy of a moment's notice.

The pain is trifling, being confined almost exclusively to that occasioned by piercing the scrotum with the trocar. Treatment can be successfully carried out while patients are attending to their usual employments.

When an emptied hydrocele has been injected with iodine, the fluid rapidly re-accumulates, and several weeks are required even in favorable cases, before it is absorbed and the cure completed. Under the mode here advocated, the fluid recurs only to a very limited extent, if at all. The results of the treatment, whatever they may be, are therefore, promptly apparent.

The encysted variety of hydrocele is made up either of one large cyst, or more frequently of a number of small cysts, filled with clear fluid, developed under the tunica vaginalis, and pushing that membrane before it as the cysts increase in size. When the scrotal tumor is multilocular, it is obviously impossible to evacuate it completely by tapping, and successful treatment by stimulating injections is equally difficult. The method commonly adopted in such cases, is to lay open the tumor and cause it to granulate from the bottom. The cure by friction is specially applicable to this variety of hydrocele, because, by this means, all the cysts can be ruptured at once, and their contents extravasated into the contiguous tissues, from which its absorption readily occurs, resulting in a cure complete, painless and safe.—*David Wark, M. D., in The Medical Tribune.*

Rhus Glabrum.

BY. H. O. BARNARD, M. D.

I propose, with your permission, to give my experience in the new uses to which I have put this old remedy—new, at least so far as my information extends. I will only mention some of the various diseases in which I have successfully employed it, before I report the cases that more immediately are the cause of this communication. I am constantly in the habit of using it in leucorrhœa, gonorrhœa, infantile diarrhœa, nasal catarrh, etc., while I know of no remedy superior to it in colliquative sweats, or a cold inactive skin, with or without rigors.

Observation of its effects had led me theoretically, to believe it might be of use in diabetes, and for months I patiently waited my chance, and the results have seemed so wonderful, I will, from my note-book, give my experience with it in this disease, that others who have greater opportunities, may correct or confirm me.

Case 1.—April 8, 1879, called to see Mr. W. S., aged seventy-four years. Had been under homœopathic treatment for six weeks without relief. Has fever all the time, but higher each evening; very much reduced; could get up, but felt disinclined to do so; pulse 135, hard and irregular; tongue large, slightly furred and looked as if scalded; skin dry and cold; is passing six quarts of water in twenty-four hours, is up every two or three hours day and night for this purpose; great thirst, little or no appetite; complains of a sweetish taste; is very drowsy and irritable; bowels constipated, have not moved for four days; urine gives evidence of plenty of sugar. Diagnosis, diabetes mellitus. Prescribed tinct. iron, cathartic pills at night, to be repeated in morning if needed; also the following:

R	Tinct. verat. vir.....	f 3i.
	Ext. rhus. glab. fl.....	f 3ss.
	Aquæ.....	f 3ijss.

M.

Ordered a teaspoonful four times a day.

Gave directions as to diet usual in such cases. April 12, saw him. Is feeling better, up and around, eats well, bowels moved freely, but little fever; tongue slightly coated, and shows more color; not so much thirst; passes only one quart of water in twenty-four hours, not up at night at all; feels stronger; mind clear and no stupor; pulse 80, full and soft; skin warm and not so dry. Continued treatment for ten days longer, when he pronounced himself well and quit treatment. He has remained in good health to date.

Case 2.—Mr. I. B., aged sixty-nine, consulted me about having to pass so much water, being up often at night for weeks; had pains in back and head, was weak, no appetite, bowels costive, felt dull and was greatly emaciated. Did not

analyze the urine, but put him on the same treatment, omitting the *verat. virid.* Called in a week for more medicine. Claimed he was much better, and in one week more was dismissed well.

Case 3.—Young man, twenty-eight years old, had been in feeble health for some time, and who, after several weeks of treatment with but slight improvement, called my attention to the fact that he had to get up several times at night to pass water, and that he passed more than a gallon in a day and night. Urine contained plenty of sugar, and left no doubt as to the trouble.

R Ext. *rhus. glab. fl.*..... f ʒss;
 Aquæ..... ʒijss.

M.

Teaspoonful four times a day. Under this treatment, he rapidly recovered, and pronounced himself well in three weeks.

In none of these cases was any other remedy used, and although the time elapsed is too short to make them of much value, none have had any return as yet.—*St. Louis Clinical Record.*

Toxic Effects of Tea.

Dr. William J. Morton describes, in *Neurological Contributions*, No. 1, a case of considerable interest. The patient was a tea-broker, aged about thirty years, sallow and thin in flesh, but apparently in good health. He was also a "tea-taster," as his business required.

"Tea is 'tasted' in the form of a simple infusion. An amount of the tea to be pronounced upon, equal in weight to a silver five cent piece, about fifteen grains, is put into a small cup, and hot water is turned on to it. Having noticed the behavior of the leaf in water, the aroma in the steam, and a few minor particular, the 'taster' takes a full mouthful of the liquid and holds it in his mouth, repeating the process until his opinion as to its quality is formed. Some tasters swallow the tea and some spit it out." The patient in question

thinks he takes about half a pound of tea each day, and has been engaged in the business about eight years. The immediate effects upon him are as follows :

“In about ten minutes the face becomes flushed, the whole body feels warm or heated, and a sort of intellectual intoxication comes on, much the same in character, it would seem, as that which occurs in the rarefied air of a mountain. He feels elated, exhilarated, troubles and cares vanish, everything seems bright and cheerful, his body seems light and elastic, his mind clear with a great flow of ideas, and he has found from experience that the workings of his intellect are more clear and vigorous than at any other time. This is not a delusion on his part, for at this time he can ‘talk a man over,’ and make a more advantageous bargain than at others. At the end of about an hour’s tasting a slight reaction begins to set in, some headache comes on, the face feels wrinkled and shriveled, particularly about the eyes, which also get dark about the lids. At the end of two hours this reaction has become fully established, the flushed or warm feeling has passed off, the hands are cold, a nervous tremor comes on accompanied with great mental depression, and he is so excitable that every noise startles him; he is now in a state of complete unrest and mental exhaustion. He has no courage to do anything, he can neither walk nor sit down owing to his mental condition, and he settles into a complete gloom. His body the meanwhile does not feel tired. Copious and frequent urination is always present, as also certain dyspeptic symptoms, eructations of wind, sour taste, etc.

“The above described immediate effects follow a single afternoon’s tea tasting. They may be summed up briefly as excited circulation, intellectual intoxication with actual increased vigor of mind power, increased urination, then a period of collapse indicated by cold extremities, tremor, mental irritability and anxiety. It will be several days before this condition of affairs is amended. At this time, the temptation to take alcoholic stimulants is very strong.”

Among the chronic effects, he enumerates headache, frontal and vertical; tinnitus; black spots or flashes of light before

the eyes; vertigo; insomnia with hallucinations of sight; very troublesome dyspepsia; capricious appetite; and a peculiar mental condition.

The latter is characterized as follows: "He lives in a state of dread that some accident may happen to him; in the omnibus, fears a collision; crossing the street, fears that he will be crushed; watches the eaves of buildings as he passes along thinking a brick may fall and kill him, or a sign fall; under the apprehension that every dog he meets is going to bite the calves of his legs, he carries an umbrella in all weathers as a defense against such an attack. He is often afraid to enter his office for fear of being told that some one had failed; and in short, lives in a state of constant foreboding of some impending evil." There is some numbness of one leg, gait somewhat unsteady and sometimes the eyelids twitch. Dr. Morton has seen several almost identical cases, so that he feels justified in accepting the details of this one as presenting a clinical picture of tea-poisoning.

Hemorrhoids.

- R. Fl. ext. collinsonia.....1 drachm.
Fl. ext. cascara sagrado.....1 ounce.
Dist. ext. hamamelis.....3 ounces.
Mix. Sig. Teaspoonful three times daily, after meals.

In old, obstinate cases, equal parts of liq. ferri sub. sulphatis and tr. opi. should be applied locally, twice daily, on a piece of woolen cloth. If the piles are external, suppositories of stramonium should be used in place of the iron.

A. J. ROE, M. D., in *Med. Brief*.

Chloral Hydrate in Diphtheria.

Prof. Von Rokitsky reports three cases of diphtheria in which the local application of a fifty per cent solution of chloral had a most striking effect on the local powers, although

the usual remedies had previously proved entirely inefficacious. The solution was painted on every half hour. The pain produced was not very intense, but each application was followed by salivation. After a few applications, the membrane could easily be removed, and delicate granulations could be seen in the reddened base. In two of the cases, the membranes had disappeared, and the raw surface had granulated in two days, and in the other the process had run its course in four days. As soon as the membranes disappeared, a weaker solution was used.—*Allg. Med. Cent.-Zeit.*

Propylamine Chlorid.

BY DR. W. W. TOWNSEND.

As there have been various opinions given lately in regard to the efficacy of propylamine in the treatment of acute inflammatory rheumatism, I deem it not amiss to give my experience with it. I commenced the use of it some twenty years ago, soon after the reports of its use and success in the Pennsylvania Hospital, and for several years procured the drug from Bullock & Crenshaw, who manufactured it largely at that time. My first case was a young man aged nineteen, who had been suffering for three days intensely, and using colchicum without relief. I will not go into details and occupy your space by giving symptoms with which every intelligent practitioner is familiar, but simply say he had the disease in its worst form. Every muscle and joint in his body seemed to be affected. He begged of me when I entered the room not to shake the floor or touch him. I prepared and gave the medicine in accordance with the formula used at the Pennsylvania Hospital, to wit :

R Propylamine Chlorid.....grs. xxxvj
 Aqua Menth. p̄p..... $\frac{3}{4}$ vj M. f. Sol.
 Sach alba.....3ij

and directed him to take a tablespoonful every two hours. He commenced taking it 10 A. M. I saw him the next day at about the same hour; he was sitting in a chair, and, to use

his own words, said : " What is the Doctor coming here for ? There is nobody sick here."

He said he felt a little pain in one shoulder, was all. I directed him to continue the medicine every four hours, and stay in his room. In less than a week he went to plowing, and never had another attack. This is only one of upward of fifty cases, many of them of the worst type, that have been entirely relieved in from four to fourteen days, very few of them over ten days, and in no case have I found the disease to return or leave any heart complication, unless the mischief had been done to that organ before the treatment was commenced.

Any medicine that will offer prompt relief in this most excruciating malady deserves careful trial at the hands of the profession.—*Country Practitioner*.

Heat and Cold to the Spine in Uterine Inertia.

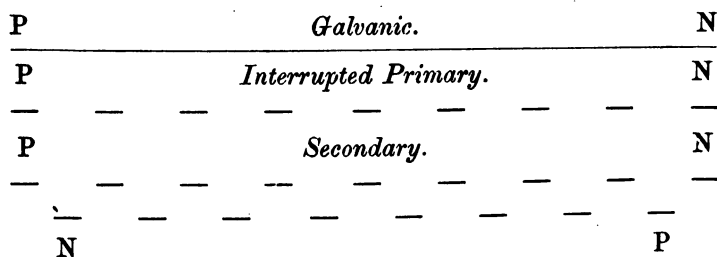
Monday evening, May 9, I was called in a case of labor. The woman was stout and robust, æt. twenty-six, and gave the following history: She had previously been twice confined; her first labor had been marked by uterine inertia, and extended, she stated, over a period of thirty-six hours; her second confinement had been of like character, but had been terminated by instrumental aid. I ascertained that slight contractions had occurred about an hour previous to my arrival. By examination, I discovered a condition of ante-flexion of the uterus; the abdominal wall projecting downward and forward. This condition, I was informed, had existed in her previous accouchements. The depressed fundus I raised and supported with a bandage, which, in conjunction with the supine position, seemed to bring the axis of the uterus more into coincidence with the brim. The contractions now became somewhat vigorous and regular, and so continued until the presenting part, the head, became firmly engaged, when complete uterine inertia supervened. The patient now stated that the "same thing" had happened at this time in her former labors. Frictions over the uterus were now employed,

but I could obtain no effect therefrom; a dose of fl. ex. ergot, Squibb's, was immediately rejected by the stomach, while ergotin administered hypodermically elicited no response from the uterus. The forceps now appeared to be the only resource, but I feared that in a case like this, of absolute inertia, forceps delivery would be followed by alarming or even fatal hemorrhage. I determined to try one other method of awakening the inert organ—that of cold to the spine—and accordingly placed an ice-bag to the lower part of the spine, and awaited developments. The effect was magical. In less than two minutes by the watch a contraction occurred, followed by another and another, and of excellent quality, too. This state of affairs lasted five or ten minutes, when the contractions began to decrease in intensity and frequency, whereupon the ice-bag was removed and a flannel compress wrung out in very hot water substituted for it. Again was the uterus awakened and forced to do its duty, and as soon as it began to flag the cold was applied, etc. Thus, by the alternate use of heat and cold to the spine, the uterus was brought under complete control, and the labor quickly and happily terminated in the birth of a female child weighing nearly twelve pounds.—*A. C. Hoffman, M. D., in Medical Record.*

Electro-Therapeutics.

(Continued from July Number, page 178.)

In the figure below, the lines are intended to show the essential differences in the three currents:



The direction of flow is always from positive P to negative N; the whole time is supposed to be one-tenth of a second,

during which the spring makes nine vibrations. The light, continuous line shows that the galvanic current is relatively feeble, but is continuous and in one direction. The heavy broken line shows that the interrupted primary is discontinuous, but is powerful and flows in one direction; the empty spaces between the dashes correspond to the make circuit, and show that at this time the interrupted primary is absent, so far as the patient is concerned, though it is still doing work inside the apparatus.

The double broken line represents the secondary current, flowing in opposite directions, one set of discharges coinciding in time with the primary, or break circuit movement of the spring, the other set occurring when the primary is not flowing through the patient, that is, at the make circuit, or during the resting of the spring against the screw.

The function of the induction coil is thus seen to be that of a machine which profoundly modifies the galvanic current; while it adds nothing to the whole amount of electricity passing, it does so greatly change its intensity, that the patient may receive far more than he would have without its help, because with the battery, alone, the resistance of his body would have prevented the cells from exerting more than a few millionths of their maximum effect through a short, thick wire. To indulge in a comparison, which, however, must not be taken too literally, the induction coil may be compared to a reservoir in which electricity may be stored during very brief intervals. The feeble, though steady flow from the battery, if used directly, will produce little effect on the patient; but it can accumulate a large amount of force in the coil, because this is composed of metal and is a good conductor. Then by means of the vibration of the spring the reservoir is suddenly discharged, and consequently a short, but powerful effect may be produced, followed by an interval, during which the receiver is being again filled.

The capacity of the coil depends both on its construction and its use—that is, both on the instrument-maker and the physician—and it is owing to the possibility of varying its “storage power” almost at will, that a good coil becomes such

a valuable instrument in the administration of electricity. The means of control are three: First, the power of the battery; second, the amount of iron in the inner core which shall be magnetized at each vibration; and third, the spring or interrupter.

The strength of the battery may be graduated by employing one or more cells; by immersing the plates more or less deeply in the fluid; and lastly, by increasing the quantity of acid and bichromate used.

The quantity of iron undergoing magnetization is a very important element; in fact, it is the part of the apparatus in which the "storing" principally takes place. If one coil is partly withdrawn, then that part of the iron outside the wire has very little influence on the instrument. Sometimes a brass tube is slipped over the iron core, which has the same effect, nearly, as though all that portion covered by the tube had been withdrawn.

The spring is one of the most important parts of the apparatus, and it is that part on which makers appear to have bestowed the least attention; through its means the character of the currents may be profoundly altered, and through it alone can a stimulating discharge be changed to a soothing one, or the current best fitted for treatment of neuralgia, for instance, be altered to that suitable for a case of paralysis.

But as the functions of the spring are so intimately associated with the administration of electricity, it will be advisable to consider both together in another paper.

Bigelow on Lister.

The Boston *Medical and Surgical Journal* of June 5 contains the first of two lectures by Prof. Henry J. Bigelow, on the modern art of promoting the repair of tissue. He admits boldly that, after two years spent in devising new antiseptic details, he has come back at last to something very like Lister's method as the most convenient and efficient. He says, with admirable candor: "I doubt whether any surgeon approaches for the first time certain machinery of the antiseptic

method without distaste. It flatters neither the vanity nor the scientific sense to exorcise an invisible enemy with something very like a censer. But after two years' experience, I have accepted the new doctrine with most of its details. I have learned that, whatever be his method, the duty of the surgeon is to act as if all the particles made visible by a sun-beam were noxious, falling like snowflakes during every operation and every dressing, seeking to insinuate themselves into the wound at every crevice. His aim should be to destroy the actual intruders, and effectually to exclude their thronging companions. While partial measures facilitate repair, and a pure air promotes it, there can be no question that the average result is signally improved by a thorough antiseptic dressing, and that the worst cases often thrive under it in a way hitherto wholly unexampled."—*N. Y. Medical Journal*.

A CHIROPODIST has invented a new operation for ingrowing nails. With the view that the difficulty was overgrowing flesh, and not ingrowing nail, nothing was done to the nail itself; but, at a little distance from the border of the latter, a lanceolate piece of flesh was removed, and the edges of the wound brought together with sutures. The healing in that position drew the overspreading flesh from the border of the nail, and the cure was complete.—*Medical Record*.

THE *Boston Journal of Chemistry* tells of a lady who suffered with sciatica, for which she sought physicians in vain. Hearing of a man who was similarly afflicted, she called on him in hope of learning of him something that might mitigate her suffering. "Do you," she asked, "find anything that affords any relief?" "Yes, marm," he replied, "two things." "Pray, what are they?" "Cursin' an' swarin'," said the pious invalid.

RECENT JOURNALS contain several reports of fatal mistakes in filling metric-system prescriptions.

EDITORIALS.

BENNETT COLLEGE.

A correspondent asks, "Why do you not extol Bennett College more in your journal? See how much space is devoted to the institutions at St. Louis and Cincinnati by their respective journals."

In reply, we might give several reasons. Two, however, will suffice. First, it is our conviction that the office of a medical journal is to convey to its readers the latest and best of everything that pertains to the practice of medicine and surgery. Our subscribers do not pay us to bolster up this or that medical institution. In the second place, Bennett College does not need bolstering up. It stands upon a firm foundation; its reputation is national; its success assured. The advanced stand which it has taken in behalf of a higher medical education is already appreciated, and its prospects were never so bright as they are to-day.

ALUMNI ASSOCIATION.

Some one has truly said that the strength and influence of an educational institution rests in great part with its Alumni. A united, wide-awake, enthusiastic Alumni, filled with the spirit of devotion, ensures prosperity to the alma mater, and, on the other hand, the prosperity of the institution of learning re-acts in substantial benefits to the graduates.

In view of these facts, it has been suggested from time to time that the graduates of Bennett College should take steps to organize an Alumni Association.

The graduates of the Class of '79 voted to initiate such a movement, and appointed a committee to draft a constitution and by-laws; but so far as the writer's knowledge extends, that committee have failed to report. The present seems a most favorable time to take steps toward organization. The "National" meets in Chicago next summer; many of our

graduates will naturally attend the meeting, and many more might be induced to come if it were known that there would be an Alumni meeting also.

The editors of **THE TIMES** propose to make a move in the matter, and see what can be done. First of all, we want the name and post-office address of every living graduate, the same to be enrolled in a register, that we may correspond with each whenever there is anything of interest to write.

Please send your name and post-office address by postal card to **MEDICAL TIMES**, northwest corner State and Madison streets, Chicago. Also state the year of graduation. When the list of names is complete, arrangements can be made for a meeting next June.

CALIFORNIA MEDICAL COLLEGE.

Our brethren in the Far West are making a good showing for themselves and for the cause which they represent. From small beginnings, they have steadily advanced to an assured position, a position which is one of the substantial proofs of the progress of eclecticism.

A college has been organized and incorporated with a strong Faculty and Board of Trustees. An elegant and commodious building has been erected in the city of Oakland, far superior to anything of the kind west of Chicago. This building was dedicated July 7, with appropriate ceremonies, the address being delivered by the President, J. Milton Bowers, M. D. We are constrained to make one quotation from it, because it embodies a principle upon which all medical colleges should be conducted, but which some seem wholly to ignore:

“To the principle embodied in the motto ‘Nullius addictus jurare in verba magistri’—(not bound to swear to the dogmas of any master) of our seal, I may add another, suitable for all sects of every profession, though neglected by most, viz., to consider nothing human as foreign to us, or, in other words, to consider the claims of humanity and suffering as superior to all others; for, though ours is a secular institution, whose wants have to be met in the ordinary business way, you will

not, therefore, understand it as a commercial one *started for gain*, but rather as one that is the outgrowth of necessity and the index of that spirit of benevolence which strives by concerted efforts to mitigate the manifold evils of man's condition."

We shall always feel a lively interest in the new college, and hope to see it pre-eminently successful. Its Faculty comprises some of the best men from our Alumni, men of energy, men of education, men of sound principles, men who are above the petty strifes and meannesses which too often belittle great undertakings.

CHICAGO AS A MEDICAL CENTER.

To the student who contemplates an investment of time and money in the acquirement of a medical education, it is of importance not only to investigate the merits of rival colleges, but also to carefully consider the advantages of the respective places where the colleges are located.

It is gratifying to us to be able to state that, as a medical center, Chicago is far in advance of all other Western cities, and ranks high in comparison with Philadelphia and New York. Six medical colleges are located here: one eclectic, two homœopathic, and three "regular," so-called. The presence of so many in one place generates a spirit of rivalry and is a constant stimulus to both teachers and students.

Five medical journals are published in the city, recording much that is valuable of clinical experience, and eliciting important discussions upon medical and surgical topics.

Our hospitals are ten or more in number, to which all medical students have access.

The largest, most important and most valuable for clinical purposes is the Cook County Hospital, which stands on a block of twelve acres of land, and has recently been erected at a cost of nearly half a million of dollars.

It consists of two large pavilions, each four stories high, and one hundred and eighty feet long—a large clinical amphitheater—separate buildings for the kitchen, laundry, bakery

and steam-heating apparatus—all connected by long covered corridors.

The amphitheater of the hospital, with a seating capacity for six hundred persons, is the clinical room in which all surgical, medical and special clinics are held.

Seven clinics are here conducted each week: two surgical, two medical, one gynecological, one eye and ear and one autopsy. These clinics are open to all medical students without respect to school or creed, and are conducted by the most skilled teachers.

Two thousand eight hundred patients were treated at the hospital during the past year; nearly one hundred and fifty important surgical operations were performed, of which twenty were capital amputations.

In the rear of the hospital is the Mortuary or Necropsy Theater, in which are held all the post-mortem examinations of the hospital, of which more than one hundred were made during the past year. Most ample opportunities are given for the complete study of the gross as well as of the microscopic appearances produced by disease.

The Illinois Charitable Eye and Ear Infirmary is of hardly less interest to the medical student or practitioner.

During the past year, nearly two thousand patients have received treatment at the infirmary. An excellent opportunity is afforded for studying the diagnosis and the medical and surgical treatment of diseases of the eye and ear.

We might speak of other hospitals and dispensaries in detail, and much might be said of the live and flourishing medical societies, than which there is none more vigorous than the Eclectic Medical Society of Chicago. But our object is simply to call attention to the fact that to eclectic students and practitioners Chicago offers greater advantages at a less expense than any other city in the United States.

OUR readers will be glad to hear of the safe return of Prof. H. D. Garrison, after an extensive tour in Europe and the East. He will assume his old position in Bennett College, and

his lectures—always highly interesting and instructive—will, no doubt, be greatly enhanced by the results of study and investigation abroad. Prof. G. will also occupy the Chair of Materia Medica in the Chicago College of Pharmacy, and has been elected editor of the *Pharmacist and Chemist*. In this connection, we take pleasure in announcing that the introductory address to the regular term of lectures, at Bennett Medical College, will be delivered by Prof. Garrison on Wednesday evening, October 1, 1879, at 8 o'clock.

BI-SULPHATE OF QUINIA.

We have lately received and tested samples of this preparation, sent to us by McKesson & Robbins, and are greatly pleased with the results. Its superiority over officinal sulphate of quinia consists in its greater solubility. While the latter is only soluble in 700 parts of water, the bi-sulphate is soluble in only 10 parts of water.

Its advantages over ordinary quinine are at once apparent, and it seems to be especially adapted for hypodermic use.

THE *Eclectic Medical Journal*, for August, current year, is at hand, devoting some four pages, more or less, to personal abuse, and berating nearly everything outside of Cincinnati. Those who have, for years past, as many have, noted the fierce onslaughts made by the proprietor of that journal and the Eclectic Medical Institute upon everything not bringing grist to his mill, will not be surprised that he considers his mongrel Homœopathy the only legitimate system of medication in the world. To avoid similar future difficulties, we would prescribe R̄ Spec. Tinct. Fel. Bov. gtt. v, Aq. ʒiv. M. Sig. Dose, a teaspoonful between the 20th and 25th of each month. If this does not succeed, it only proves, as is stated on another page of the same journal, that "Such cases will come in the practice of every one, and *shows* the necessity of further study."

CORRESPONDENCE.

To the Editor of the Medical Times.

Some readers of THE TIMES have access also to *Scudder's Journal*, and such may wonder at his attacks upon Bennett Medical College, in the August number. The animus of these attacks, however, is plain enough to those who understand the relative positions of the two schools of medicine. Bennett Medical College has taken an advanced stand in favor of a higher medical education, has abolished the two-term system, and taken every possible step to make its course of study more thorough and more complete. Consequently, its diplomas are received everywhere without question. The Eclectic Medical Institute, of Cincinnati, on the other hand, persists in continuing the two-term fraud, and, consequently, its diplomas are looked upon with suspicion. The State Board of Illinois has already refused to pass them, and other State Boards will follow suit.

This, of course, is mortifying to the proprietor of the E. M. Institute, and he vents his spleen through his journal upon his superiors.

His graduates are rejected by the Illinois State Board, and straightway appears an article upon "Incompetent Teachers and Imperfect Medical Teaching."

A State tribunal by its acts declares the Eclectic Medical Institute to be an inferior college, and a bitter personal attack upon Prof. Clark follows. Such exhibitions of puerile malignity are not surprising, perhaps, when we consider their source, but they are nevertheless a disgrace and a blot upon a profession which should be the embodiment of genuine courtesy, and beyond the influence of mercenary motives.

F. B. H.

WAUCONDA, Ill., August 20, 1879.

NEW YORK THERAPEUTICAL ASSOCIATION.

Pursuant to call, the Association met July 14, 1879, 8 o'clock P. M., at the rooms of the United States Medical

College, No. 114 East Thirteenth street, Paul W. Allen, M. D., in the chair.

After reading of minutes, an interesting paper was read by Thomas A. Granger, M. D., on *Pruritus Ani*, which called out considerable discussion on the therapeutics of this annoying complaint. The essayist had found most relief from an ointment containing a small quantity of sulphate of zinc, after most all other remedies, usually recommended, had been ineffectually used. The concurring testimony of nearly all the members present was in favor of the zinc, although some had found a good remedy in borate of soda.

Another paper was then read by Richard E. Kunze, M. D., on the "Properties and Uses of *Monarda Punctata*, or horse-mint." With this old but little understood, remedy, the Doctor has had great success in the cure of chills and fever. Several cases of malarial fever were cited, which were treated exclusively with *monarda punctata*. His mode of administering is in the form of a saturated tincture, giving from one to four teaspoonfuls in a little hot water every half hour during the stage of the chill and until the fever passed off. Diaphoræis would ensue, and at every repetition of an attack, a less quantity of the medicine would accomplish the antagonistic effect of the drug. The action of *Monarda* would seem to be by sustaining the vitality of the patient. A bottle of the tincture exhibited was pleasant and agreeably aromatic in taste and smell, and thought to be a desirable medicine for children.

The subject for the evening, "Cholera Infantum," was opened for discussion by W. L. Tuttle, M. D., who, in a very clear and comprehensive manner, set forth the cause of this disease and various modes of treatment advanced by learned practitioners throughout the land. The best treatment he knew was as little medicine as possible, plenty of pure air and careful nursing. Keep the feet warm. Flannel bandage around bowels. Alkaline and astringent medicine, sufficient to correct the too frequent discharges of the bowels. As a tonic, he knew none better than from $\frac{1}{4}$ to $\frac{1}{2}$ drop of tinct. nux vomica. Dr. Kunze stated, that the syrup of the flowers of *Nymphaea Odorata*, had long been used as a remedy in

cholera infantum. Dr. A. B. Whitney, who of late had used much of the sirup of white pond-lily, informed the Doctor that it worked like a charm. The sirup is mucilaginous, anodyne, and scarcely at all astringent. It used to be a favorite prescription with Samuel Thomson.

Some of the sirup was here exhibited, and Dr. Kunze said the universal testimony of those having tasted it, was that it resembled honey more than medicine. Just the remedy for children. All the members who tasted of this sirup, declared it to be a pleasant preparation.

The subject was further discussed by Drs. M. Nivison, James E. Briggs, P. W. Allen and Thomas A. Granger.

The essayists for the next meeting were Drs. Mark Nivison and William L. Tuttle. The Association adjourned to the second Monday of August next.

JOHN R. NICKLES, Ph. D., *Secretary*,
Per R. E. KUNZE.

WE were considerably surprised at an article which appeared in the last number of *Scudder's Journal*, of Cincinnati, entitled "Incompetent Teachers and Imperfect Medical Teaching." The article was simply an attack on Bennett Medical College, and, of course, the statements there made must be true, as they come from such a disinterested (?) source. It appeared as a communication to the editor, and the writer, *no doubt*, must be wholly disconnected (?) with Scudder's College, as none of his professors would be so immodest or impolitic as to try to advertise themselves by injury to others. We might find fault with Dr. Scudder for allowing such a communication to appear, but probably he was asleep, or gone on a journey; or possibly his mind has become clouded by age and overwork. It may be, however, that down there, in Cincinnati, they are so behindhand in civilization as to think that sparring with words is the height of scientific discussion. If so, we leave them to their own happy amusement, and simply protect ourselves in self-defense.

The article itself is highly entertaining and enormously instructive. It either evinces a foresight of several hundred

years, at least, when all the affairs of the present day will have been forgotten, or was written from a standpoint of thirty or forty years ago.

Among other points it refers to an address delivered by Prof. Reading, at the commencement exercises of Bennett Medical College, wherein it was stated that formerly the facial nerve was cut for *tic douloureux*. It flatly denies this fact, and says, "This ignorance of both anatomy and physiology would be inexcusable in a physician, much more in a teacher of medicine." We would simply refer the writer to Dalton's *Physiology*, a *text-book* with which the merest tyros of medicine in Chicago are familiar, but of which they probably have not heard in Cincinnati. Under the head of the facial nerve, Dalton says, "The facial, therefore, does not transmit sensation from these parts; and its division, *which was formerly resorted to in tic douloureux*, is accordingly altogether incapable of relieving neuralgic pains." If more proofs were necessary, an abundance of them is furnished in the works of Sir Charles Bell himself, who did more to establish the functions of the nervous system than any one else. We repeat, and this time without quotation marks, this ignorance of both anatomy and physiology would be inexcusable in a physician, much more in a teacher of medicine. Other flaws equally correct and interesting, are found in the address above referred to, but we assure the writer that the statements there made were by the authority of such men as Dalton, Flint, Hammond, etc., which are universally received up our way, but whose works have probably not yet penetrated to the inland town on the creek.

The article again takes issue with Prof. Whitford's treatment of whooping-cough, and we can but conclude that the disease must be different in the two different places. We *know* that this method of treatment works well here, and it can't be that they don't know how to treat whooping-cough in Cincinnati. We assure you, gentlemen of Cincinnati, if you really do not, you had better leave the patients to themselves, for they will nearly always recover sooner or later.

The weakest point in the whole article was the writer's attack on Prof. Clark. Here we descend from the sublime to the ridiculous. The idea of Scudder pitching into such a man as Prof. Clark reminds us of the fable of the frog and the ox. A man who runs a college simply for money, who edits a journal simply for money, who writes books simply for money, who pretends to invent a peculiar system of medication simply for money, must be satisfied with the attainment of his object, but must not aspire to the position of true science occupied by Prof. Clark; much less should he assume to dictate what is right and what is wrong.

The article ends with a few unimportant slurs on Prof. Davis, which are as ridiculous as they are far-fetched.

In truth, the whole article, in unfair dealing and petty meanness, caps the climax of contemptibility. When a man, who is at the head of an institution which pretends to teach the noblest profession, is obliged to edit a journal and prostitute its pages to the personal abuse of teachers of another institution, it is about time that he shuts the slanderous doors of his whole concern, and allows his disciples and friends to leave such an atmosphere of miserly plotting and selfish scheming for some place where there is true refinement and real culture.

E. M. R.

BOOK NOTICES.

A CLINICAL TREATISE ON DISEASES OF THE NERVOUS SYSTEM.

By M. ROSENTHAL, Professor of Diseases of the Nervous System, at Vienna; with a Preface by Prof. CHARCOT. Translated from the author's revised and enlarged edition by L. PUTZEL, M. D. New York: William Wood & Co. 1879.

This work is a valuable addition to Wood's Library of Standard Medical Authors. Dr. Rosenthal, a distinguished practical observer and teacher of the Vienna school, first published his work in 1870, since when it has passed through two large editions. Prof. Charcot translated it into French, in 1878, and it now appears for the first time in English dress. It was worthy of an earlier introduction, and is especially

valuable to the busy practitioner, because it is a clinical treatise.

In regard to treatment, the author is clear, judicious and practical, and in this respect the work is much more satisfactory than most works upon this class of diseases.

REMARKS ON OVARIOTOMY WITH RELATION OF CASES AND PECULIARITIES IN TREATMENT. By NATHAN BOZEMAN, M. D., Surgeon to the Woman's Hospital of the State of New York, etc. New York: William Wood & Co. 1879.

Dr. Bozeman gives us an interesting little pamphlet, in which he discusses the various methods of treatment after operation and outlines his own, which consists mainly "in the early and continuous use of quinine and opium per rectum, in conjunction with free and liberal support of the system by oral or rectal alimentation, or both at the same time, as means of preventing or controlling high temperature. Records of the first nine cases operated upon by the author are given, of which eight lived and recovered.

THE TREATMENT OF EPITHELIOMA OF THE CERVIX UTERI. By J. MARION SIMS, M. D.

This is another interesting pamphlet, by a distinguished physician and author, which gives the results of his experience in the treatment of a formidable disease. He condemns amputation, and recommends complete exsection of the diseased mass.

HISTORY OF THE DISCOVERY OF ANÆSTHESIA. By J. MARION SIMS, M. D. New York. 1879.

PRECAUTIONS REQUISITE IN THE ADMINISTRATION OF ERGOT. By J. W. COMPTON, M. D., Professor of Materia Medica and Therapeutics, Evansville, Ind. Geo. S. Davis, Publisher, Detroit, Mich.

NOTES OF HOSPITAL AND PRIVATE PRACTICE. By HENRY GIBBONS, Sr., M. D.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND. Eighty-first Annual Session, held at Baltimore, Md., April, 1879.

ANNUAL JOURNAL OF THE ECLECTIC AND LIBERAL MEDICAL ASSOCIATION OF EASTERN INDIANA. Edited by N. G. SMITH, M. D., Lewisville, Ind. Published by the New Castle Courier Co. 1879.

A COMPENDIUM OF THE MOST IMPORTANT DRUGS, WITH THEIR DOSES ACCORDING TO THE METRIC SYSTEM. By WILLIAM F. WHITNEY, M. D., and F. H. CLARK, Apothecary to the Boston Dispensary. Boston: A. Williams & Co., Medical Publishers. 1879.

THE AMERICAN JOURNAL OF ELECTROLOGY AND NEUROLOGY. Edited by JOHN BUTLER, M. D. New York: Boericke & Tafel, 145 Grand street. This journal is published quarterly. Price, \$2 per year.

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Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.
ANSON L. CLARK, M. D., Editor.

VOL. XI. CHICAGO, OCTOBER, 1879. No. 7.

ORIGINAL COMMUNICATIONS.

[XLI.]

SPINA BIFIDA.

BY PROF. S. W. INGRAHAM, M. D.

Spina bifida is a defect, or, more properly, an opening in the spinal canal, allowing the membranes of the cord to protrude. Surgeons have so little to say about this congenital defect, that little knowledge can be gained from their writings. Gross, Vol. II, page 186, says: "The lesion which is caused by an arrest of ossification and consequent deficiency of the vertebral rings, is generally situated in the lumbar region, but occasionally it affects the dorsal, cervical, or even the sacral. It is frequently associated with hydrocephalus, and is analagous to those malformations which originate from a want of union of the two halves of the foetus during utero-gestation, such as hare-lip, cleft-palate and umbilical hernia."

The same surgeon further says that "when the tumor first shows itself, it may not be larger than a pea; but, as the disorder progresses, it gradually increases in size, varying in proportion to the deficiency of the vertebræ; and that, although the swelling does not usually exceed the size of an orange, it occasionally reaches that of the fist, and even of the child's head."

I attended, in the month of May, this year, two cases of spina bifida, complicated with hydrocephalus and atrophy of the inferior extremities. The first child was born of Holland parents, and came under my charge for treatment after a consultation with the physician who was in attendance when it was born. The tumor was in the lumbar region, and presented about the proportion and shape of a medium-sized pear, and was covered with a thin, transparent membrane, through which a thin, serous fluid was oozing. The inferior extremities were in the same condition as to form and size that they should be in the foetus at five months of utero-gestation, while the trunk and head were rather large, the head showing signs of hydrocephalus. The mother of this child claimed then, and now, that she slipped on the icy pavement at the fifth month, and fell square upon her back, and that she had pain in that region up to the very time the child was born. This fall might have produced dropsy of the arachnoid membrane of the spinal cord, "and the fluid carrying with it the membranes of the cord, have arrested ossification of the bony structure at the point of the rupture," or, it might have caused congestion, followed by dropsy in that particular portion of the soft vertebræ, causing it to part and the membranes to protrude through the opening. Now, it has never been my good fortune to see many of the extraordinary phenomena spoken of by some of the older writers, such as the taking-on of spina bifida after birth, or the closing up and radical cure of these defects, especially where the tumor was large and discharging freely. It is possible that iodine and iodide of potassium, introduced into the sac by subcutaneous injection, has accomplished good results. Indeed, I would not dare to say that it had never produced radical cures in the hands of other surgeons; for it will be remembered that the late lamented Dr. Brainard represented, in the press and to the public, that he cured five out of seven cases by this course of practice. W. Martin Coates, in *Braithwaite's Retrospect*, January, 1866, says he cured a case by Brainard's method, the tumor being the size of a walnut. In fact, these spinal defects have been treated with marked success by various plans and numerous practitioners

(in their minds) all over the civilized world ; and if their statements are true, then spina bifida is curable by any of the following methods, viz. :

1. "The withdrawal of a certain quantity of fluid from the tumor, and replacing it by an equal quantity of a solution of iodine, one part, iodide of potassium, three parts, water, one thousand parts." A. Wood's syringe and needle is used instead of a small trocar. By this plan a small puncture is made, "which is not so liable to wound nervous tissue," and has another and very important advantage, of keeping out atmospheric poison.

2. By frequently puncturing the tumor with a very small trocar, then painting it over with collodion, and adjusting a neat-fitting saddle, truss or compress lined with an air-cushion. This was Abernethy's method, and "Sir Astley Cooper, in early life, is said to have treated a case of cleft-spine quite successfully, by compression alone, and another case, soon afterward, by combining repeated punctures with compression."

3. Tying the base of the sac with a ligature.

4. Repeatedly puncturing the sac, and then closing it up with adhesive straps.

5. Longitudinal incision under an antiseptic veil, and covering the tumor with carbolized lac-plaster, and keeping it in position with adhesive plaster.

6. Nature's own method of radical cure, by adhesion of the arachnoid membrane around the base of the tumor.

In all cases of spinal tumors, appropriate remedies should be used to control the over-abundant secretion of the tumor, in order that adhesion may take place, and so that compression of the brain will not follow from a too free discharge of the cephalo-spinal fluid. I am an unbeliever in the doctrine of complete isolation of these larger tumors by any of the varied treatments heretofore recommended ; and I still further believe that these larger tumors, complicated with hydrocephalus and atrophy of the inferior extremities, are fatal to life, and that no case can survive many months, even under the most favorable treatment. The case represented in the forepart of this paper is a fair sample of what I class as incurable

cases. This child died of convulsions thirty days after birth, notwithstanding all rational plans of treatment applicable to the case had been persistently and faithfully carried into execution. For three days prior to death, the organs of deglutition were paralyzed, so that the child had to be nourished by artificial means. The second child was still-born one week after the first. The tumor was of similar size and situation, but it had ruptured during labor, and the child had died of compression of the brain.

Four years ago, a child six weeks old was brought to me, suffering with bifid spine, situated in the lumbar region. The tumor, so far as general appearance and thin membranous covering, was similar to those previously mentioned; but the walls were soft and compressible, and but little fluid appeared to escape, while the child was otherwise well formed, and the various organs seemed to perform their functions well. I had read an article in *Braithwaite's Retrospect*, of 1872, from the able Dr. John Wilson, physician to the Glasgow University Lying-in Hospital, wherein he represented a case a fortnight old, and the tumor the size of half a billiard ball, and presenting similar conditions to the case I was about to operate upon. I concluded to try his method, which consisted of a free incision under an antiseptic veil, viz.: "tumor first moistened over with carbolized oil (1 in 8), and then opened by free longitudinal incision (about three-quarters of an inch in length), under an antiseptic veil of surgeon's lint, previously soaked in carbolized oil. Simultaneously with the removal of the lint, a large piece of carbolized lac-plaster was applied, and over this another, kept in position by adhesive plaster, leaving one edge comparatively free for the escape of fluid. A soft piece of silk laid over this completed the dressing." I deemed this operation no more hazardous than the various methods previously recommended, especially those advising repeated punctures, and subcutaneous injections. I therefore conducted the treatment of the case after this plan, and have every reason to believe that if I had not been called away out of the city, the treatment would have proved greatly beneficial to the little sufferer; but my going away without notice or consultation, placed the

child in the hands of others who did not use proper means to protect the wounded tumor from atmospheric poison, and the child died from this cause before my return. I am indeed sorry to say, in conclusion, that I know of no cure for large spina-bifida tumors, complicated with hydrocephalus and deformity of the inferior extremities.

[XLII.]

MEDICAL EDUCATION.

BY S. H. POTTER, M. D.

(Continued from page 284.)

The medical student has but just commenced acquaintance with the great science and art of medicine when a diploma is well earned, and conferred because merited. This alone cannot fit any one for future success and a useful and happy life. I have known many of superior literary and medical attainments who soon utterly failed in adapting their knowledge to their chosen pursuit. Their fond hopes of gaining honorable distinction and a good degree of usefulness were blasted in sad and unlooked-for discouragement.

A well-considered, wisely formed *plan* of life and proper *rules* for action are indispensable to success. Any dependence upon *chance* or *luck*, or waiting for something favorable to "turn up," is unworthy of common sense people, and leads to utter wreck. Even fortune possessed is a frail basis on which to build up a successful professional life. Fortune generally helps only those who are incompetent to help themselves. Men are what they make themselves, as a rule.

Purposes, however wise and just, without *plans* cannot be relied on for good results. Random or spasmodic efforts, like aimless shots, are usually no better than wasted time and strength. The purposes of shrewd men in the business of life are always shaped into carefully-formed *plans*. Whether the object is education, wealth or honor, the ways and means are laid out according to the best rules and methods. The mariner has his chart, the architect his plans, the sculptor his model,

and so of other pursuits—all as a means and condition of success.

Invention, genius, or even what is termed inspiration, can do little in any branch of theoretical or practical science, or art, only as it works by a well-formed plan. With this every move is an advance toward the completion of the object. Every tack of a ship made by nautical laws keeps her steadily nearing the port. Each stroke of the chisel brings the marble into closer likeness to the model. No effort nor time is lost, because nothing is rashly done or at random. Does our profession form any exception to being projected by wise and just purposes, and pursued by pre-formed plans of action? Certainly not; no other pursuit can need these more.

When medical students graduate, and go out to commence their professional career, they assume and act three characters which must be sustained through professional life.

First. That of a real devoted *student*, which character should be maintained to the end of life. The very nature of the great profession demands this. The chief art of learning is to attempt but little at a time, as the widest excursions of mind are made by short flights, frequently repeated; and by verifying, by careful observations of what is acquired, thus treasuring up what is learned.

Second. That of a useful and happy citizen. People who are healthy and happy take an active part in everything which concerns their community, their State or their country. A selfish man must necessarily be unhappy. A proper interest and sympathy for others give men vigorous minds and broad views. Selfishness contracts even great intellects. Money may make a beautiful residence, but only intelligence and culture can give interest and beauty to the sphere or world in which a man passes his life. Everything is valuable to those who know its character, its history and use; while the ignorant take little interest in nature's choicest productions. To one man the earth is a boundless museum, giving endless study, thought and happiness; and the heavens are a vast system of mighty worlds. To another man the sky is simply blue space, bounded by his common vision; and the earth is simply a clod

on which to grow grain and vegetables. A man's mind should be kept vigorous and sympathetic by learning something about every object coming under his notice, and thus become well informed. We need not seek a high degree of knowledge of these things, except such as pertain to our own profession; but seek by our own labor to obtain a reasonably clear conception of the progress of science and the ends it gives. By thus doing we shall be qualified to find subjects and objects in the world to interest and content ourselves and infuse happiness in others while life lasts, regardless of our state of health or condition of fortune. Thus can we qualify ourselves for useful, happy lives in our private social circles and business relations, and thus our declining years will not be barren nor desolate ones.

Third. That of a medical man. The first two qualifications are indispensable in order to become a good and useful practitioner of medicine.

Physicians will find the following, or similar simple rules, very useful in the daily routine of professional duties :

1. The object of treatment is to restore health as *speedily*, *pleasantly* and *safely* as possible. When the spontaneous efforts at cure are progressing favorably toward recovery, it is unwise to interfere with drugs.
2. When a remedy is indicated, and a choice is possible, select the one which is most agreeable in its action, and without injurious results upon the body.
3. Prescribe medicines in the forms which are most acceptable. Conceal, if possible, offensive odors and tastes, especially with "sensitive patients" and children.
4. When there is an *idiosyncrasy* as to any special medicine or form of it, or as regards any particular diet, avoid prescribing them. Extreme susceptibility to the influence of certain drugs, odors, tastes and food sometimes exist, and it is unwise and unsafe to combat known peculiarities.
5. The condition of the patient when the medicine will act must be regarded, as a sudorific, when the patient must be exposed to the open air, would prove worse than useless.

6. *Incompatible* medicines in a prescription, or in two which alternate each other, must be carefully avoided, unless intended to form a new compound. When alkalies are indicated and used, lemon or other acid drinks are obviously improper. And *vice versa*.

7. *Incurable* diseases require alleviation. Giving no undue encouragement, it is a humane duty to render waning life as comfortable as possible, and extend it to the utmost limit.

8. Do not prescribe or allow the use of quack medicines, or secret remedies, and none whose composition is not understood.

Good advice must be given from time to time, and pains taken to impress the patient and attendants with the importance of thoroughly carrying out the directions. Superstitions and prejudices must be kindly met and overcome without giving offense. *Hope* and *confidence* are indispensable factors, in chronic cases, at least. The patient who has *faith* in the doctor will recover much sooner, *ceteris paribus*, than one who is shy or incredulous.

10. Prescribing medicines without the proper diet or management, is only half doing duty. Directions must be given in plain detail—as to proper places for the bed, ventilation, amount of light, position in the bed, degree of quiet, exclusion of callers, cleanliness of the patient, and the nature, quantity and interims of food. No cooking in the sick-room. In protracted cases, one bed for the day and another for the night is desirable. The spread of infectious disorders must be timely and carefully prevented. Soiled clothing, dirty water, etc., must be removed. A bed-pan, containing a disinfectant, ought to be used to receive the evacuations, and promptly carried out.

11. Formulas should not be prescribed with servile exactness. All medicines of any power have to be adapted to the condition of each case. "A bundle of ready-made receipts, in the hands of the routine practitioner, is but a well-equipped quiver on the back of an unskilled archer."

12. All cures are not *our* cures. The medicines prescribed may not have been taken, or may not have been absorbed, or its properties may have been destroyed by adulteration, or it

may have worked injury, even—a recovery in *spite* of the disease, medicine and the physician.

13. "The poor you have always with you," is a humane appeal which cannot fail of the proper and ready response by a profession which appreciates the *sufferings* and *necessities*, often aggravated, prolonged and more fatal among the poorer classes of our common humanity.

(*To be continued.*)

[XLIII.]

VICARIOUS EXPENDITURE OF NERVE-FORCE.

BY J. T. KENT, M. D., ST. LOUIS.

(*Concluded.*)

In the September issue of *THE TIMES*, I referred to the phenomena and probable *modus operandi* of such abnormal evolution or expenditure, and to the channels and currents of nerve-force. This article will continue the subject with the recommendation of *Faradisation* in the therapeutic management, as the most appropriate form of electricity in this class of cases.

The too commonly accepted opinion is, that retained secretions (menstrua, *e. g.*) must be carried off or evacuated and, therefore, nature establishes this vicarious exudative process at some foreign locality for such a purpose.

The first question for us to ask is, why are the menstrua retained?

Many cases of amenorrhœa occur from mere lack of the necessary nerve-force, or from mere general enfeeblement of the nerve-centers that preside over the ovulation—the ovum is not natural—and the female, from exhaustion of the vegetative centers, does not undergo her usual menstrual nîsus, and does not, usually, even experience the struggle (*Molimen*). Such a condition must be differentiated from those produced by colds; sudden suppression when in full habit of body. Vicarious fluxes seldom occur in amenorrhœa produced from general exhaustion.

Again, a female is said to have taken cold when she has enjoyed an unusual degree of health; her menstrua fail to appear, or they may have become arrested in the midst of her flux; she becomes excited and wrought up to a high state of nervous tension, perhaps, hysterical and delirious. To say the menstrua are retained, and that this supposed excrementitious matter must be eliminated, does not satisfy a scientific inquiry. But if we may be allowed to suppose that the cold first produced a shock to the vegetative centers, locally diminishing nutrition, or that such force may be evolved at other localities in the gray nerve-substance and that the shock paralyzed special centers of ovulation, or that the force about to be directed toward the menstrual operation should be deflected to other channels, and expended on the mucous membranes of the nose, mouth or lungs, then we can comprehend why an exudation or transudation takes place.

The force necessary to establish and operate an exudation from the mucous membranes of the uterus, if deflected, will establish an exudation from mucous membranes (most likely mucous membranes) of any portion of the body. Then it may not be retrained menstrua, but deflected nerve-force, that causes vicarious menstruation. Commonly, a deflection of nerve-force is accompanied by, and the real cause of, great bodily disturbance and mental derangement, though not, by any means, always.

To thoroughly elucidate the theories we have so long held would lead us beyond the province of a journal paper, and, in passing, can but call attention to a few facts that may lead to a better understanding of Nature's elaborations.

CASE.—Mrs. D., aged 30, often passes a period of three months without experiencing her menstrual nixus, during which time she becomes dropsical in her feet and limbs. So soon as her flux appears the effusion disappears; thus do we see the aqueous elements transude by the vicarious expenditure of nerve-force.

CASE.—Mrs. S., aged 28, has often been afflicted by tardy menstruation (from one to two weeks late). At such times

she is rheumatic; sometimes her joints are swelled and tender to the touch. When her flux becomes established her rheumatism, as it were, vanishes in a day.

These conditions must suggest the nature and cause to be vicarious expenditures of nerve-force, in many cases in everyday practice, and should often change the methods of our treatment to the relieving of some encumbered nerve-centers, and diminished activity of others also should explain the *modus operandi* of so-called emmenagogues when such agents afford relief.

Emmenagogues are so uncertain, and when success has followed their use, their action is so uncertain as to *modus operandi*, that the next case, apparently similar, meets with the same experimental management.

Again, anti-rheumatics will not reduce the swelling of joints caused by this abnormal expenditure of nerve-force. Hydragogues will carry off the water effused from such cause but the tissues will immediately fill again.

The nerve-centers that preside over the contractility of muscular fibers of capillaries must be looked after, or such effusions may prove troublesome, and such tumefaction of joints may cause serious local structural changes. These are from relaxations of capillary parietes—reflex vaso-motor paralyses of capillaries.

Sleeplessness is a common phenomenon of vicarious expenditure of nerve-force. A female is often said to "take cold" by undue exposure to cold, sudden atmospheric vicissitudes, or from damp feet; the menstrua do not appear; she is sleepless; her face is flushed and she suffers from the usual symptoms of suppression. The absence of the flux is not by any means the lesion. A shock to the nerve-centers that preside over ovulation has occurred and the force is deflected to the capillaries of the brain. At first, excitation of the vaso-motor centers is produced by centric irritation, lastly, reflex vaso-motor paralyses of the cerebral capillaries in portions. The brain first suffers, providing the predisposition of the patient is favorable to such localization. Then, firstly, comes the period of excitement, which is not generally noticed except in the

brain, spinal cord or organs: lastly, the period of stasis or reflex vaso-motor paralysis of capillaries.

For the purpose of differentiation it may not be beyond my province to mention that natural sleep only occurs during a moderate state of anaemia of the cerebrum, and it is by such a condition we may contrast natural sleep from true coma, which is a condition beyond excitement—stasis of the capillary circulation—and in adults is very rare. During the active stage the appearance is sleeplessness, and during the passive, coma, which is profound in proportion to the extent of passive turgescence of the nervous structures.

In regard to the expenditure of nerve-force in other than natural channels, as in reflex vaso-motor paralyses, which are often, if not always, examples of vicarious expenditure, it may be suggested that, in such conditions, there appears to be a lack of nerve-force; but, when carefully considered, we can but notice, first, the freedom from these reflex paralyses when all nerve-force is equally expended in the natural manner throughout the economy; second, that all reflex vaso-motor centers are excited before they are depressed; finally, that relaxation of vascular parietes is only produced by hyperstimulation when the causes are of the reflex variety.

The excitation is invariably centric, and the phenomena are usually, but not always, peripheral, as head and cord symptoms are not very uncommon.

The proper administration of drugs may lead these cases to a satisfactory termination, but as conditions elucidated in the the above will most likely suggest the proper medicinal agents, I have deemed it more advisable to confine this paper in closing to the management of the rather subacute consequences, or the condition commonly entailed by these not well-understood maladies.

The majority of these cases recover without aid, or if attempted aid be offered, it is commonly so contrary to the real nature of the conditions that nature, in addition to establishing an equilibrium of nerve-force, has to combat with antagonistic drug action, viz., catharsis, diuresis, diaphoresis, and the numerous gogue-agents of old-fashioned physic.

Then, after the exciting period is over, the effect of electrization is a luxury compared to the old management, and medicine is seldom required to overcome the subacute and chronic centric lesions. When there has been no period of excitement the electrization should be begun at once.

An inexperienced physician in the effects of electrization, might inquire if electricity is useful in such apparent hemorrhages of the nose, mouth and lung?

Patients and even physicians denominate every machine constructed for generating electricity a "galvanic battery." Not long since I heard a physician call a Franklinic apparatus a galvanic battery.

Physicians in this, the period of reason, should be capable of an ordinary degree of intelligence in regard to these things, even if they do not desire to expend the time and money necessary to qualify them to make use of electricity in general practice.

General Faradisation should be applied by placing a metallic plate (zinc), which is padded with sponge, wetted when in use with warm water, under the feet, connecting it with the cathode, generally, and the operator should stroke the spinal column from the cervix to the sacrum with one hand, holding in his other hand the anode. A feeble current may be passed through the top of the head and forehead by wetting the hair to facilitate conductivity. The term "feeble," needs some qualifications, as generally used it is very indefinite, but should be considered such a strength of current as will not produce shock or painful contraction of the muscles. It always has in view the impressibility of the patient, which varies with different individuals and with the same individual at different times and under different circumstances.

Increasing currents are advisable, commencing with only a perceptible current and gradually increasing until the patient is mildly influenced.

For general Faradisation, large electrodes (sponge) are preferable, as condensation and pain are avoided. By large

electrodes, the patient may receive a much greater quantity and not suffer pain.

Condensed currents are only necessary when it is desirable to produce a local impression and perhaps some excitement or local sedation.

[XLIV.]

CHOLERA INFANTUM.

BY I. G. M. GOSS, M. D.

Cholera infantum has been epidemic in this locality this past spring and summer, and it is still prevailing. It has generally commenced with diarrhœa, but frequently the vomiting marked the onset of the disease. This epidemic has been characterized by unusual putrescency of the discharges, together with very rapid emaciation and anæmia, and in many cases hydrocephaloid symptoms. Children teething have been generally obnoxious to the disease, from the rapid growth of the brain during that critical period, which requires an abundance of fresh air for its development. The above fact accounts for the prevalence of the disease in densely crowded cities.

I can illustrate the treatment that I have found successful by giving a case that I have carried through safely. I was called to an infant some fifteen months old, which I found with constant vomiting and excessive purging; stools thin, greenish, and very offensive. I commenced the treatment with tincture of ipecac, 6 drops to $2\frac{3}{4}$ of water; dose, a teaspoonful every hour. This moderated the vomiting, but did not check it. I then gave Merrell's specific tincture of euphorbia cor., 6 drops to $2\frac{3}{4}$ of water, every hour, which checked the vomiting, but the diarrhœa continued. I now gave tincture of rhei. 1 drop every hour, but the discharges continued. As the discharges were very offensive, owing to the very marked septic condition, I now gave creosote, 5 drops in $4\frac{3}{4}$ of water; dose, a teaspoonful every two hours. This readily checked the discharges. I now thought that I had my little patient safe, and dismissed it; but in some twelve hours, the father called me in again. On examination,

the little sufferer had some arterial excitement, with constant throwing of the head from side to side, with contracted pupile and flushing of the face. For this condition I gave belladonna $\frac{1}{2}$ drop every two hours, alternated with aconite $\frac{1}{2}$ drop every two hours, ordering the extremities bathed in warm water frequently. Under this treatment, the child rapidly convalesced, and is now in good health. This is the treatment that I have found successful in many cases, but in some I have checked the vomiting with small doses of ipecac, and the purging with the compound syrup, or the tincture of rhei. I have tried the monobromide of camphor, but it did not answer me as well as ipecac or euphorbia cor. And in cases where there is a septic tendency, I find creosote to answer the purpose well. If that should fail, I should resort to small doses of baptisia.

[XLV.]

RADEMACHER ON AQUA NICOTIANA.

TRANSLATED BY PROF. N. P. PEARSON.

It was in June, 1819, when brain fever began to appear here (Goch, in Western Prussia, near the boundary of Holland), that I learned to know the healing action of tobacco. Before the appearance of this fever, bilious fever had prevailed for some time, in which I found alkalies and tincture nux vomica healing. These diseases differ very little in their first appearance. In both, there was severe headache, slightly coated tongue, often bitter taste, high fever, with full and quick pulse. The urine was, in both fevers, quickly red and turbid, then healthy in appearance. The diagnosis, that this brain fever was different from the hitherto prevailing bilious, I have, to speak honestly, only obtained by this means, viz.: That the use of the alkalies and hepatic remedies was not visibly healing, but that the fever and severe headache remained, and, after all, the disease proceeded undisturbed. I readily admit that I was not a little astonished when I saw simply the bitter taste disappearing on the use of the hitherto healing remedies (in the special cases where it was present), but that the fever

remained with the same severity, and the intense headache did not at all yield. Should I conscientiously enumerate the symptoms of this brain fever, it would be too tedious for the reader, for he readily comprehends that when we speak of fever, then also the usual symptoms of fever are present. Every sensible person readily comprehends that when the brain is morbidly affected, those organs which are entirely or partly supplied with cerebral nerves, must be very much subject to sympathetic lesions. But such affections are very variable; in one, they appear one way, in another, otherwise, and why, in one this, in another that organ is sympathetically affected, no good reason indeed can be given. Thus toothache was, in many cases, the forerunner of the fever; in others, it appeared at the end of it. Others had buzzing in the ears; others inflamed eyes. Again, in others, yet in the fewest, there was, in the beginning of the fever, such severe vomiting that even the most innocent drinks were immediately ejected. Moreover, in others, yet also in a few, there appeared sympathetic liver affections, and a thereupon depending abnormal secretion of bile. The diarrhoea which sometimes occurred was likewise a sympathetic intestinal affection. Subsultus tendinum was very rare, and a spasmodic contraction of the muscles was still rarer. I remember only one lady whose hands were spasmodically closed, that they only could be opened with force, which I did not like to use. As I now, besides the present brain fever, must also speak of other brain fevers, I shall be silent in the future about the general fever symptoms, as well as those sympathetic symptoms which any sensible person easily may imagine, and only speak of the symptoms by which this fever is distinguished from other observed brain fevers, which I shall describe after this. The only symptom by which the present fever was distinguished, was a severe headache, rather drawing than beating, which, in many, occupied the entire head; in more, the occiput, and in some the region of cerebellum alone. In those where, during the first days, it occupied the entire head, it afterward settled in the occiput. Some, however, a few, complained of pain in cerebellum, and besides in the spine, between the

shoulders. These also suffered from sympathetic affection of the chest, even spitting blood. The headache was, in all, unceasing; it did not intermit, and its daily remission was so very, very small, that the patient, if I did not call his special attention to it, did not notice this slight remission, but continuously reported the pain unconditionally as being equally intense. The muscular power was, in all the patients, rather good, so that they could raise themselves up in the bed—even get up entirely, without or with little help. But before I knew a remedy for the primarily affected organ—before I could check the disease, I saw the muscular strength after awhile disappear, as in typhoid fevers. That I came with suitable remedies to the patient's assistance against such debility, did not, in the main, do any good; for when I could effect immediately, that he could again raise himself up in the bed without any help, even without exertion, his brain was not yet healed thereby. The disease ran its course undisturbed, and the apparently beneficial action on the entire organism disappeared again in a few days by the continued use of the same remedies, which, in the first two days, had treacherously flattered the patient and the physician with the glad hope of rapid recovery. This fever, left to itself, lasted a long time—a very long time; nature made no critical eliminations, but cured it only by exhaustion of the whole body, provided that the patient endured this tedious, endless self-cure. Really, continual delirium was rare, but I met with it, however, in a few. Other symptoms of typhoid or nervous fever, as dryness of the tongue, subsultus tendinum, diarrhoea, followed in the course of this fever, when it was left to itself. But these symptoms were generally also very changeable. Their presence or non-presence made the disease neither more dangerous nor less dangerous. Thus, the dry tongue might become moist, the subsultus tendinum, the diarrhoea cease, without indicating any improvement. All the experience which I had acquired beforehand in typhoid or nervous fevers, did not benefit me any—not the least. An estimable and, in literature, well-known physician, who had treated only a single one of these patients, told me at that time, “in this fever all diagnosis

and prognosis cease." In the sense that we usually take these technical terms, he was perfectly right.

Like all diseases arising from a diseased organ, this fever had a forerunning stadium, which, in regard to duration, varied very much, so that I cannot with truth tell even approximately the medium time. It manifested itself by dizziness, giddiness, humming in the ears, toothache or headache; in one, one way; in another, otherwise. In many, this chronic condition remained continuous, and did not at all become acute. I admit that I once, before I was initiated into the matter, mistook such an intense chronic headache for rheumatism of the head, and treated it accordingly. But the success of my treatment soon taught me that I had to do with quite another thing. That in a great many patients some rare cases must have occurred is obvious. Thus I remember that a strong servant girl, not at all disposed to fainting, after having felt, during fourteen days, some giddiness of the head, but not having paid attention to it, one morning dropped down in the yard, broke two incisor teeth on the stone pavement, was carried in a faint into the house, remained in a faint until noon, was lying with high fever, after she had recovered her senses, and she had already the same evening, a red, quite dry tongue. I remember a strong young man, who, trusting to his good constitution, first desired my help on the third day of the fever. On this day, the intense headache had disappeared, after an abundant bleeding from the nose, but, instead of the ache, such a fearful roaring in the head, and such a feeling of illness appeared, that he thought it to be high time to solicit my skill. The bleeding at the nose, which, however, occurred in the fewest, was at that time generally not fatal, also even not dangerous, but yet undeniably making the disease worse.

(To be Continued.)

SELECTED.

Advertising Doctors.

The rule of the regular medical profession that no member of that brotherhood may resort to the advertising art is not

one of instantaneous clearness, and hence it needs, like law or like an obscure text in Scripture, a commentary long or short. If the medical fraternity has assigned reasons for this rule of etiquette, it has not published those reasons very widely, and the public knows only the bald fact that the regular physician never asks the daily papers, nor the board fences, nor the rocks along the highway, to bear record to his skill. The physician who does proclaim the merits of his drugs and arts is condemned to wear upon his bosom a scarlet letter "Q." For such distinctions made over the presence or absence of advertisement there must be some reason more or less good.

It being admitted that advertising is a right and sensible thing to do or to be done in the world's general business affairs, one may well wonder why a man who pretends to heal diseases may not, like the vendor of dry goods or steam engines, or like the president of a railway company, emblazon in all ways the virtues which are at his command. The highest mercantile houses in the world hasten to state that they have received the best and cheapest goods ever heard of: the makers of a piano line the whole side of a newspaper to state the fact that Beethoven and Mozart and Sappho and Saul and David would never sit down on a stool before any other instrument than their "grand," and that Solomon would have their "upright" in his "house of cedar." Now, why this mode of making the public know where their interest lies becomes perfectly shameful, when a man who cures diseases resorts to it, is not instantly evident.

The shamefulness of advertising great curative agents cannot rest in the fact that the things told in these medical advertisements are all lies, for they are not false in any exceptional sense. The placards of railways and of merchants and of life insurance companies do not contain any large per centum of what is called "gospel truth," and yet the men who stand as the authors of these mendacious chromos are accepted as kings in society. A railroad man who should state that his line were the shortest, smoothest, safest and grandest between Jerusalem and Bagdad, would not be called a railway quack, were his hand-bill all one continuous, well-ballasted, double-tracked lie.

Hence, although fearfully false, the medical advertisement is not exceptionally false. Its lies have plenty of companionship of a respectable character.

Instead of being void of truth, the average advertising doctor tells some truth on the board fence and on the rock, because the human frame is so pervaded by general laws, that as nearly all diseases spring from a few causes, so there are a few drugs which will act favorably against a hundred different ailments. The regular doctor treats a hundred diseases with a half-dozen nostrums, and should his art be set forth upon the board fence, we should be amazed to find how many forms of physical misery were combated and defeated by calomel or quinine or *nux*.

Thus the question where lies the shame of the physician who placards his art becomes complicated. In this thick fog, we imagine that we see light in this fact; that loud advertisements are pardonable in those pursuits whose sole aim is the making of money. If the world has tacitly admitted that purely commercial trades may resort to great handbills and capital letters, and that intellectual and religious callings must adopt a more modest style, that tacit understanding will tell us why it is that the doctor who commands the ends of houses and the sides of mountains to proclaim his worth, is justly denominated a *quack*. He has taken a high art which should be full of thought and science and all modes of scholarship, and has made it simply a matter of money. His mind is out in the world upon the same errand as that which impels the dealer in produce. As at the railway stations one sees a score of porters each one attempting to shout highest the name of his hotel, the whole business not being one of science or culture, but of money, so in the advertising doctors we see a lot of men who have discarded the office of student and professional man to live only for money. In this general statement must lie the reason why the medical advertiser is rated at a low figure by the professional world. He may have some good drugs on hand, but he has degraded a high calling.

In the educated and intellectual world, it is admitted that one must use the placard with much more economy than marks

a showman or a land agent. Powers and Thorwaldsen did not dare state what wonderful works they were making in their shop; nor did Bierstadt dare tell what wonderful secrets he had learned about perspective and color; nor do the regular lawyers dare state in the papers that they can make the best of all speeches upon any side of any case; nor may a clergyman, without charge, place in some public place a handbill to the effect that he has on hand a fine assortment of sermons upon all important questions of earth, hell and heaven. In this immense and goodly company of persons where mind seems to rise above both boasting and money, the physician stands, and he will starve to death, or turn mechanic or farmer, before he will ask his profession to hire a man with a brush and paste-pot to help him pull in money. It may be that his pills would help many persons who are ailing and that by spoiling some of Nature's rocks and by publishing the letters of persons whose livers have been purgated by his May-apple and hyssop he could attract to himself many who have pains and symptoms, yet he would rather feel that there was one doctor too many than attempt to fill his money-purse by any degradation of a noble and learned profession.—*The Alliance*.

The National Eclectic Medical Association.

There was a certain propriety in appointing the next meeting of the National Eclectic Medical Association at Chicago. The re-organization had taken place in that city, after a lapse of thirteen years. It was pleaded eloquently that the tenth anniversary should be held where the career of the organization had so auspiciously begun. "We will have a tin wedding," said one. It was enough. Alack, St. Louis! Avaunt, Buffalo! The grand family gathering will be at the Chicago Homestead. So the Association and its Electoral Committee, each in its turn, deliberately voted.

The response from Chicago promises all that can be desired for the occasion. The Eclectic Medical Society of that city has begun already by naming a Committee of Arrangements and a Reception Committee. Prof. Jay writes: "We have some

sixty-five Eclectics in Chicago, and I think that almost every one of them is not only willing but anxious to do everything in his power to aid the good work of the National Association. Any information that the President or Secretary may want we will always be ready to give. Any of us will be willing to serve in any capacity. We think we are alive in Chicago on the subject of Eclecticism, and we expect that every one that visits us at that meeting shall think so."

Dr. Stratford also writes: "I only hope that I shall be alive and well, and able to assist to the best of my ability in making all who favor us with their presence happy and contented while with us, and that they may carry to their homes sweet thoughts and remembrances of their visit. I want everything done in shape, as far as we are concerned here, to make it a grand success, and an event that you may all remember with pleasure and profit."

President Green has made the following appointments.

COMMITTEE ON LOCATIONS FOR PHYSICIANS.

J. M. Scudder, M. D., 228 Court street, Cincinnati, Ohio.

R. A. Gunn, M. D., 102 E. Twenty-third street, New York City.

P. D. Yost, M. D., 2908 Pine street, St. Louis, Mo.

B. S. Yeagley, M. D., Box 612, Johnstown, Penn.

W. S. Latta, M. D., Lincoln, Neb.

C. Edwin Miles, M. D., 126 Warren street, Boston Highlands, Mass.

SPECIAL REPORTS.

Surgery.....	A. J. Howe, M. D.	
Gynæcology.....	A. L. Clark,	"
Theory and Practice of Medicine.....	S. H. Potter,	"
Obstetrics	John King,	"
Otology	Henry Olin,	"
Ophthalmology.....	Robert S. Newton, Jr.,	"
Chemistry.....	Albert Merrell,	"
Physiology and Hygiene.....	Alexander Wilder,	"
Materia Medica	Charles Band,	"
Medical Jurisprudence.....	Henry B. Piper,	"

Dermatology.....	H. K. Whitford, M. D.
Microscopy.....	G. H. Merkel, “
Laryngology.....	Milton Jay, “
Diseases of Children.....	P. W. Allen, “
Pathological Anatomy.....	S. E. Mortimore, “

ADDRESSES.

It is desirable, if practicable, to devote the evening session to reading and discussion, and the following have been designated to open as indicated:

W. S. Latta, M. D., “The Nature and Consequences of Malarial Poisoning.”

S. B. Munn, M. D., “Defective Drainage as a Cause of Disease.”

Wilson H. Davis, M. D., “Public and School Hygiene.”

A. G. Springsteen, M. D., “Care and Education of Children.”

Milton Jay, M. D., “Physiology in Education.”

J. C. Durgan, M. D., “Importance of Sanitary Legislation.”

H. S. McMaster, M. D., “Inebriety and Crime.”

R. S. Newton, M. D., “Marriage of Syphilitized Persons.”

A. L. Clark, M. D., “Fashion and its Penalties.”

C. E. Miles, M. D., “Physiological Instruction of Patients.”

F. J. Lock, M. D., “Yellow Fever.”

C. E. Griswold, M. D., “Zymotic Disease.”

D. P. Borden, M. D., “Impure Water as a Source of Disease.”

J. B. Shultz, M. D., “Building Ground in its Relation to Health.”

James Anton, M. D., “Relation and Hereditary Tendency between Inebriety and Epilepsy.”

ESSAYS.

V. A. Baker, M. D., “Relation of Sex to Health and Longevity.”

L. T. Beam, M. D., “Brain Culture in its Relations to the Schoolroom.”

H. A. Bolles, M. D., “Alcohol in Disease.”

L. H. Borden, M. D., “Defective Nutrition of Children.”

J. R. Borland, M. D., "Influence of Civilization on the Duration of Human Life."

G. W. Boskowitz, M. D., "On Chemical Examination of Urine."

J. H. Bundy, M. D., "Advances in Pharmacy."

H. W. Buxten, M. D., "Phenomena of the Pulse."

W. F. Curryer, M. D., "Subacute Ovaritis."

Orin Davis, M. D., "Emotional Insanity."

H. S. Firth, "Syphilitic Brain Diseases."

H. D. Garrison, M. D., "Responsibility of the Insane for Criminal Acts."

R. W. Geddes, M. D., "Influences of Heredity on Disease."

F. L. Gerald, M. D., "Pathology of Puerperal Fever."

R. A. Gunn, M. D., "The Metric System in Prescriptions."

W. H. Hawley, M. D., "Therapeutics of Epilepsy."

A. J. Howe, M. D., "Mental Evolution."

J. A. Jeancon, M. D., "Effects of Malaria on the Glandular System."

N. Jewett, M. D., "Physiology and Pathology of the Sympathetic Nervous System."

J. W. Kermott, M. D., "Intemperance as a Disease."

J. W. King, M. D., "Bright's Disease."

R. E. Kunze, M. D., "Medical Botany."

J. V. Lewis, M. D., "Puerperal Septicæmia."

J. T. McLaughlin, M. D., "Nervous Disorders connected with the Genital Functions."

A. J. Marston, M. D., "Dressing for Fractured Clavicles."

M. M. Miles, M. D., "Transmissibility of Tuberculosis."

J. M. Mulholand, M. D., "Conversion of Types of Fever."

H. G. Newton, M. D., "Ventilation."

R. S. Newton, M. D., "Heredity and Consanguineous Marriages."

M. Nivison, M. D., "Disorders of Sleep."

Henry Parker, M. D., "Typho-Malarial Fever and its Treatment."

John Perrins, M. D., "Anæsthetics and the Forceps in Obstetrics."

George C. Petzer, M. D., "Nervous Shock."

S. H. Potter, M. D., "Physiology and Pathology of the Brain."

Henry Povall, M. D., "Relation of Melancholia to Inebriety."

P. W. Reed, M. D., "Progress of Medical Science."

J. M. Scudder, M. D., "Positivism in Medicine."

E. M. Shaw, M. D., "Opiumania."

D. E. Smith, M. D., "Sexual Hygiene."

S. S. Stoner, M. D., "Important Facts in Practice."

B. J. Stow, M. D., "Reciprocal Action of the Mind and Body."

S. P. Taft, M. D., "How to Eradicate Hereditary Taints."

A. P. Taylor, M. D., "Insanity."

E. B. Taylor, M. D., "Impure Milk as a Source of Disease."

A. Thompson, M. D., "Scrofulous Taints."

C. D. Thompson, M. D., "Urocytic and Urethral Diseases of Women."

A. Wilder, M. D., "Unconscious Cerebration."

J. M. Welsh, M. D., "Sewer-Gas Poisoning."

G. W. Winterburn, M. D., "The Berberidaceæ."

H. Wohlgenuth, M. D., "Ecchymosis and other Effusions of Blood caused by Nervous Influence."

A. B. Woodward, M. D., "Specific Action of Medicines."

J. H. Woodward, M. D., "The Causes of Sterility."

B. L. Yeagley, M. D., "Heredity and Evolution."

P. O. Yost, M. D., "The Ophthalmoscope in Cerebral Disease."

E. Younkin, M. D., "The Laws of Fatigue."

Mrs. R. V. Anton, M. D., "Influence of Maternal Impressions upon Offspring."

Mrs. M. C. Nivison, M. D., "Pathology and Treatment of Hysterical Disorders."—*The Medical Tribune*.

Extract from call for National Eclectic Medical Association
June, 1880:

The National Eclectic Medical Association.

"I trust that every member of this Association to whom report, address or essay has been assigned, will endeavor zealously to perform his duty. The subjects which have been selected take a wide range, but they all come within the province of the physician. The thorough examination of them will be of immense value to the writers themselves, as well as to those who hear or read the papers. An earnest spirit of investigation, with breadth and clearness of view, cannot fail to secure enlarged scientific knowledge, which will benefit ourselves and the general community.

"While we devote a part of the time to the common medical topics, I hope and desire that special attention will be given to preventive medicine—mental and physical hygiene in its broadest sense. The venerable Prof. Gross, in an address to the Medical Society of Kentucky, says: 'The great question of the day is, not this operation or that, not ovariectomy, lithotomy, or a hip-joint operation, but preventive medicine—the hygiene of our persons, our dwellings, our streets, in a word, our surroundings, whatever and wherever they may be, whether in city, town, hamlet or country. * * * The people must be roused to a deep and more earnest sense of the people's welfare, and suitable measures adopted for their protection, as well as for the better development of their physical, moral and intellectual powers. This is the great problem of the day, the question which you, as representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow-citizens—the question which, above and beyond all others, should engage your most serious thought and elicit your most earnest co-operation.'

"The study of sanitary medicine for twenty-five years, and observations in private practice and in hospitals and asylums have profoundly impressed me with the importance of this subject. Although not desiring that other questions shall be superseded, I would earnestly urge all members of this Association to investigate thoroughly the laws of health and disease.

of mind and body, and to devote themselves to the promoting of mental and bodily hygiene. The reciprocal influence of parts seemingly unconnected is acknowledged by medical and metaphysical inquirers. Disraeli says: 'The tenant and the house are inseparable; so that in striking any part of the building you inevitably reach the dweller.'

"Careful attention is desired for all the topics which have been selected for addresses and essays. They all have a bearing on the laws of mental and bodily hygiene. Heredity in its mental and physical aspects, inebriety, opiomania, insanity, nervous disorders, maternal impressions, brain-culture in relation to the schoolroom, school hygiene, physiology in education, reciprocal action of the mind and body, the law of fatigue, the care and education of children, inebriety and crime, sexual hygiene, fashion and its penalties, syphilis and marriage, how to eradicate inherited taints, zymotic diseases, public hygiene, malarial poisoning, sewer-gas poisoning, defective drainage, impure water and impure milk as causes of disease, building ground in its relations to health, physiological instruction of patients and other like questions are intimately involved in preventive medicine. Ignorance on these subjects is causing a vast amount of sickness, suffering and mortality. The *ignorance*, as well as the iniquities of the fathers, is visited upon the children; they, in their turn, confer an inheritance of woe in the form of minds and bodies disordered. It is our duty to explore and understand the laws of health and disease; the public have the right to require this, and if we are true to our cause, to God and humanity, we will endeavor to perform it faithfully.

"MILBREY GREEN, M. D., *President*."

Battery Fluid.

Dr. Tilley, in the *Chicago Medical Journal and Examiner*, makes public a device by which the constancy of the galvanic current may be increased, and the necessity of frequently re-amalgamating the zincs avoided. The idea is not original with him, but it is not generally known, and any device which

will dispense with the necessity of amalgamating the zincs, will be a great source of satisfaction to the majority of physicians. To accomplish this, it is necessary only to add a certain quantity of bisulphate of mercury to the ordinary battery fluid. The amount given by Gaiffe, of Paris, is four or five grammes of the bisulphate of mercury to the liter of the regular sulphuric acid and bichromate fluid. Of course, it is necessary to amalgamate the zincs before commencing its use. They will then remain amalgamated. The marked improvement in the constancy of the current obtained, and the avoidance of the troublesome process of re-amalgamating the zincs, makes this hint a valuable one to all physicians using batteries.

Strangulated Femoral Hernia—Operation.

BY FRANKLIN STAPLES, M. D.

Mrs. B., German, aged 47, had suffered from hernia twenty-six years, caused from lifting a sack of rye from the barn floor to the shoulders of her husband when she was in the seventh month of pregnancy. She had worn an ordinary truss most of time for twenty-five years. The hernia had never before become irreducible. On the 2d day of December, while making some unusual exertion it came down and became irreducible. The next day she took a dose of compound cathartic pills, and, on the night of this day, the hernia became very painful, and the abdomen became tympanitic and vomiting occurred, which continued and became stercoraceous on the 5th. Dr. Walcott, of Minnesota City, saw the case the first time at noon on the 5th. He gave her symptoms as follows: There was a dry skin, flushed face, pulse 120, an anxious expression of countenance, abdomen tympanitic and pain and tenderness over the region of the hernia. There was retching and occasional stercoraceous vomiting. He was unable to reduce the hernia by taxis. It was now the fourth day. I saw the patient at 3 o'clock P. M., and, finding taxis with chloroform unavailing, proceeded to operate. The patient was now approaching a stage of collapse. There was coldness of the extremities, with imperfect capillary circulation. We obtained

a fair anæsthesia with ether after some trouble, made incisions and dissections after the usual manner, and found the hernial sac to be about the size of a hen's egg. I was surprised to find the color of the sac to be but little more than a natural red. I had difficulty in passing my fingers to the constriction because of adhesions. These were broken away by the finger and the constriction found to be at the upper end of the femoral canal. The finger, with the knife, were carried up, and the sharp border of Gimbernat's ligament divided. The hernial sac was now reducible. Being satisfied that there were adhesions and constrictions in the sac itself, I then drew it out as far as necessary, opened it, and with my finger relieved the constrictions and then carefully put it all back. Three deep stitches were now introduced into the deep fascia, the ends being left long and the integument closed by silk sutures. Carbolized dressings were applied, opium given, and on the seventh day the bowels were moved by the aid of a full dose of castor oil. The recovery was reasonably rapid and complete. Two lessons are to be learned from this case. First, that the actual condition of the parts involved may not be so bad as length of time and the symptoms might seem to indicate, and, therefore, that a case may not be hopeless, although the external symptoms be very grave. Second, that to insure success, the hernial sac should be opened before the reduction is accomplished. The operation in this case evidently would have resulted in failure had this been omitted.—*Transactions of the Minnesota State Medical Society, 1879.*

A Case in Practice.

BY D. W. HAND, M. D.

Mrs. E. E., aged 33, never had any children, but had long been troubled with falling of the womb, as she supposed.

Came under my care in June last; was then weak, nervous and emaciated, having an irritable stomach, and her bowels either constipated or running off with a sort of dysentery.

She wanted me to treat her for womb disease. On examination, I found the virgin uterus in normal condition, but could

not pass a small speculum without giving her great pain in the rectum. Oiling my finger and passing it up that organ, I found at three inches above the external sphincter, a tight, inflammatory stricture, through which only the tip end of the finger would pass, the edge of the stricture being sharp and well defined.

I wrapped a probe-pointed, curved bistoury to within half an inch of the point, and then, guided by the fore-finger of my left hand, passed it through the stricture, turned the knife up, and easily divided the sharp edge, so my finger would pass readily. I gave her a small tallow candle to pass occasionally, and she has since had no trouble.

In this case the patient had her mind so impressed with the idea of womb disease, that she came near misleading her physician.—*Transactions of the Minnesota State Medical Society, 1879.*

Phymosis, Causing Retention of Urine.

BY JAMES DAVENPORT, M. D., ST. PAUL.

During the afternoon of March 26, 1879, a woman brought an eleven months male baby to me. She said that the child was cross and irritable, crying and straining, and that she thought the child had not passed any water for a "long while"—nearly two days.

The physiognomy of the child was one of distress and suffering. Questioning whether there was retention in a child of this age, I examined his abdomen, perceiving some little protrusion above the pubis, and percussion dullness about half way to the umbilicus, with evident distress from pressure upon abdomen. There was also phymosis. The child had had a dose of castor oil which had not operated. I wrote a prescription containing spiritus ætheris nitrosi and liq. morphia sulph. U. S. P. Gave directions for an enema, a hot bath and hot, moist fomentations to the parts. About 11 o'clock that night, the father came for me, saying "the child was dying." I found the poor babe in most evident distress; short, catching respiration, eyes fixed and staring and a moaning

cry. Percussion dullness was higher than before. I immediately passed a No. 2 soft catheter, meeting with little resistance. Not more than two ounces of urine passed away, but great relief was afforded the child. The child had had the medicine ordered, but the other directions had not been carried out.

The child continued to suffer for three days, various alleviative measures being tried, and, possibly, his diaper being wetted a little occasionally. The child was catheterized two or three times again, the eye of the catheter being one and one-eighth inch from the bulbous end, prevented my drawing but about two ounces at each operation.

I had believed from the first that the child's phymosis was the exciting cause of the retention, and, on the 29th, Dr. D. W. Hand assisting me, I performed the simple operation of circumcision. The mucus membrane was considerably adherent to the glans penis, with some little masses of smegma lying beneath. The wound healed nicely, the child regaining—after a slight catarrhal fever, a week after the operation, from exposure—good form and health.

The question of peripheral nerve irritation, causing reflex trouble, was, as far as I know, first brought prominently forward by Dr. L. A. Sayre, of New York. His cases, published in the *Philadelphia Medical and Surgical Reporter* for October 14, 1876, showed at that time, as have many others since, that in phymosis an exciting cause may exist for severe reflex nervous disease. Infantile paralysis most prominently. Also, stone in bladder, enuresis, and, as in this case, retention.

The benefits of circumcision, when necessitated, are evident aside from the question of peripheral irritation.—*Transactions of the Minnesota State Medical Society, 1879.*

Nitrate of Amyl in Ague.

I tried this article for arresting the paroxysm in one case of this disease, as recommended in the last issue of the *American Medical Journal*, and it gave the happiest result. The cold stage was just coming on; hands and feet cold, and

chilly sensations in the region of the spine. Patient said the remedy appeared to go to the ends of the toes in a few seconds with the effect of producing a glow of warmth, and a complete relief of the symptoms of chill. There was a very slight fever followed, but it subsided within an hour, succeeded by gentle perspiration. By the use of other remedies, the chill did not return.—*Dr. J. W. Thrailkill, in The American Medical Journal.*

Electro-Therapeutics.

(Concluded from September Number, Page 300.)

The uses of electricity, as a remedy, are very numerous, both in the general treatment of disease, and in special cases of surgery; but as this series of articles deals with cases which can be treated by simple apparatus, it will be necessary only to mention the most important classes of disorders to which it may be applied, and these will fall naturally under two heads: first, those in which electricity acts primarily on the nervous and muscular systems; second, where its action is primarily and chiefly chemical. The first class includes cases where the system as a whole, or single nerves only, are in an abnormal state, which may be either one of increased activity or one of depression, that is, of exalted or of lessened sensibility of the nerve, and of inflammatory or of atonic condition of a muscle.

There has been carried on, for some time past, a controversy as to whether the physiological effects of electricity on the nervous system were due to current direction or to polar influence, and partisans of either view may still be found. According to some authorities, the effect is produced solely because the current determines chemical changes throughout the entire length of the nerve or muscle which it traverses and electrolysis takes place over the whole of this region, so that, accordingly, acid is generated at one end and alkali at the other, these affecting the nerve subsequently by simple chemical action. The advocates of polar action do not undertake to explain why the nerve is affected, but content themselves with asserting that each pole exerts a peculiar influence which extends till it is met and neutralized by the emanations from

the other. Both parties, however, admit the substantial correctness of the results obtained by Eduard Pfluger. He first established the fact that the passage of a moderate galvanic current longitudinally through a nerve divided it into two distinct portions, which he called, respectively, anelectrotonic and cathelectrotonic, one of these conditions being found near the anode and the other the cathode.

I will venture to change Pfluger's names to accord with the fundamental terms mentioned in the first of these papers, they will become, therefore, positive-electrotonic and negative-electrotonic, the first referring to the state of the nerve at, and to some distance from the positive pole, the other to the region about the negative pole. The important observations of the German physiologist were these: That in the state of positive-electrotonus the irritability of the nerve was diminished, while it was increased in negative electrotonus, and that there was a neutral line of normal irritability where these two regions met. He found, too, that the strength of the current had a marked influence on the character of the effect produced. His laws may be epitomized as follows:

(1) The mildest currents applied to the nerve cause contraction only on closing the circuit, that is, on making the battery connection.

(2) Currents of medium strength cause contraction both at closing and opening in both directions.

(3) Strong descending currents (that is, from the center toward the periphery of the nerve) cause contraction only at closing the circuit, while strong ascending currents cause it only at opening.

For mild continuous currents it has been proved that the region about the positive pole will be in a depressed condition. If a motor nerve is operated on by a descending current, the result will be that after a time, varying from five to ten minutes, the irritability, or, perhaps, it would be better to say the tonicity of the muscles, controlled by that nerve, will be diminished. As a rule, too, the supply of blood to the muscle will be lessened. The opposite result will be obtained if the current is reversed. With very long continued galvanic currents the

irritability of the nerve will be lowered independently of direction, but less rapidly by ascending than by descending currents. If strong interrupted currents, which give violent shocks, be employed, the effect will be always stimulating provided the shocks are not excessive and are only applied for one or two seconds. If they are continued for many minutes in the *same direction*, they will exert a sedative effect, which may be pushed to temporary or complete paralysis. With alternating currents the stimulating influence is more marked than the other. Indeed, there is no application of electricity more intensely and purely stimulating than that caused by suddenly reversing the direction of the current through the patient.

The bearing of the general principles on the use of the induction coil will be apparent. The interrupted primary, which, necessarily from the mechanism of the coil, flows always in one direction, is the best substitute for the galvanic current; it can be made nearly continuous, and, therefore, mild, by causing the spring to vibrate as rapidly as possible, say three or four hundred times per second. The vibrations are made very rapid by advancing the contact screw so as to make the excursions of the spring as short, and, consequently, as numerous as the apparatus will permit. The reason why this arrangement will give a mild current is, because the quantity of electricity "stored" or employed in magnetizing the iron is very small—because of the shortness of time during which the battery current flows; consequently, when demagnetization occurs, the amount sent to the patient is small but it is sent very often. On the other hand, a slow vibration of the spring of say ten or twenty a second, will give a series of shocks rather than a current properly so called. Thus it will be seen that the control of the spring is a matter of vital importance to the operator, and it is greatly to be regretted that instrument-makers have paid so little attention to this essential feature. A good induction coil should be provided with an interrupter which can be quickly and certainly adjusted to any rate—between five and five hundred vibrations per second.

The secondary current will always be more intense than the primary for the same adjustment of the apparatus, and it will be a stimulating current because its direction is necessarily reversed automatically by the spring; its sedative and chemical effects will be subordinate ones.

To convey the general idea of these distinctions, let us contrast the kind of currents called for by paralysis and neuralgia. I instance the treatment of these merely as illustrative cases, not at all because I wish to dogmatize. First, then, in a case of neuralgia, confined to a definite region and not depending on cerebral disease or traumatic injury to a nerve, we shall find in electricity a powerful sedative and tonic; but obviously to be so applied, its alterative and soothing influence is required, not its stimulating one. The interrupted primary would, therefore, be used; the positive electrode would be applied as near the trunk of the nerve as possible, and the negative electrode, which must have a large surface, would be at the periphery; the spring would be adjusted to its most rapid movement, and a mild current barely capable of causing any muscular contraction would be employed for ten or fifteen minutes.

For paralysis, depending, for example, on lead-poisoning, we need stimulation; and this, of course, would be secured by the secondary current, applied by electrodes terminating in sponge or cloth surfaces so as to make complete contact with the skin; without this precaution there would be danger of cutaneous irritation, the spring would be made to vibrate rather slowly and shocks sufficient to cause strong contractions in a healthy muscle would be employed.

The electrodes required for the application of electricity for general purposes like the above are not many. Properly, any conductor held by the patient is an electrode, but the term is restricted to especially shaped pieces of metal which lead the current into the patient's body. A pair of handles and a pair of sponge cups with insulating handles will be all that will be required for most purposes.

For the local application of electricity, where its action is chiefly chemical, a greater variety of electrodes will be needed.

In using it in this way, the object is to produce electrolysis, and the galvanic current is here superior to any other. Each pole will have the same definite action which it has on non-living matter, that is, the positive electrode will determine the production of free acid in the tissues in its vicinity, and the negative electrode will generate alkali. To obtain a marked effect, the cuticle must be absent where only two cells are employed, because of its high resistance, and the pole whose influence is desired, must be attached to a small electrode in order to concentrate the current. In the treatment of an indolent ulcer, for instance, the positive electrode, which should be of platinum, or, at least, of iron nickle-plated, in the form of a small olive would be applied directly without any covering to the surface of the ulcer, while the negative electrode might be a sponge cup, moistened in salt and water and placed on the skin a few inches away from the margin of the sore.

A New Method of Engendering Tuberculosis.

(*Über Eine Neue Method Tuberculose zu Erzeugen.*)

DR. TAPPEINER DE MERAN, in *Virchow's Archives*.

This author, taking into account the fact that very frequently persons who are descendants of robust families become phthisical from contact with tuberculous patients, was led to regard tuberculosis as a contagious disease. He thought that the particles of expectorated matter diffused in the air at the moment of coughing might be the cause of the contagion. Direct inoculation, the introduction of tuberculous sputa with the food, and the injection of tuberculous matter into the trachea, did not yield satisfactory results, as practiced by Lippl. Dr. Tappeiner therefore tried a new method of experimentation. He made the animals breathe air saturated with an atomized solution of the sputa, thus compelling them to introduce into their lungs the supposed elements of the contagion. The experiments were performed at Munich, in the pathological institute of Prof. V. Buhl, under the following conditions: The sputa of tuberculous patients having cavities

in their lungs, was dissolved in the water of an atomizer, in the proportion of from three to five hundred grammes of water to one spoonful of sputa. The solution thus obtained was projected by the atomizer into closed wooden boxes, containing the dogs. In the first eight experiments, the boxes were 1.12 meters long, 0.82 of a meter wide, and 0.86 of a meter high. One of the ends of each box was made of wire lattice, covered with linen cloth. Through these ends, the atomized spray was introduced. In the four first experiments, atomization was performed twice each day, and was kept up for an hour each time. The animals were not permitted to leave the boxes at any time during the continuance of the experiments. In the four succeeding experiments, atomization was performed but once a day, the animals being free in the intervals. In the three last experiments, the animals were kept in wooden cages of twelve cubic meters, the boards being separated by spaces of considerable size; the material atomized in three days contained only a teaspoonful of sputa. Dogs were chosen for these experiments, because, according to Prof. Bollinger, they are seldom affected with tuberculosis. The animals could move around freely in their cages, and the jet from the atomizer was never thrown directly on them. In eleven dogs treated in this way, there was found, at the autopsy, miliary tuberculization of both lungs. Tuberculization of the kidneys occurred in a still greater number of cases, while the liver and spleen were rarely found affected. The nature of the deposits was verified by the microscope—in one case only were the characters of the lesion doubtful. It was generally about the end of the third week that miliary tubercles were deposited. In two dogs killed before this time—one at the end of ten days, the other, after the fifteenth day—no tubercles were found. At the beginning of the fourth week, an abundant infiltration of tubercles was found. The quantity of expectorated matter that gained access through the bronchi was necessarily very small, since, in the last experiments, the animals were confined in cages into which the air could easily penetrate through the spaces between the boards. Moreover, atomization was performed but once a day.

Schottelius (*Vorlauf Mittheil. med. Centralblatt*, Number III), obtained the same results by using the mucous expectoration of patients suffering from simple bronchitis, and who were not tainted with tuberculosis; he attributes the development of tubercles to the introduction of foreign bodies. Tubercles were also produced by the absorption in the lungs of atomized solutions of particles of cheese, cerebral matter, etc. According to Dr. Tappeiner, the conditions of Schottelius' experiments did not prevent the penetration of a considerable quantity of solid particles into the bronchi. Besides, repeated under different conditions, the experiments of Schottelius yielded negative results.

The lungs are not the only organs through which the poison acts. The infectious particles are also absorbed by the digestive canal. To two dogs, about fifteen grammes of tuberculous sputa were administered every day with their food. At the end of six weeks, their lungs were examined, and in them were found numerous miliary tubercles. Tuberculous ulcerations were also found in the intestines. On the other hand, six other dogs, treated in the same manner, presented nothing abnormal.

Of the eleven dogs experimented on, nine were lively, and presented the appearance of perfect health up to the last moment. May it not be inferred from this that there exists a latent period during which the infection is produced? Reasoning from analogy, it is very probable that phthisis is produced in a somewhat similar way among men—the infection being accomplished by means of special particles diffused in the expired air at the moment of coughing.—*A. Mathieu in Archives Generales de Medecine. Translated for Physician and Surgeon.*

The Eclectic School in Medicine.

Perhaps the majority of our readers will demand of us some explanation for publishing the reports of recent meetings of eclectic medical bodies, State and national, as they appear in our present number. It is not, by any means, in a spirit of

apology that we refer to this matter, and yet, we feel that the position which *New Preparations* seeks to maintain on the question of therapeutics, more particularly calls for a few words on the subject. We trust that we are not so bigoted as to be blind to the good that is patent in any system, how much soever that system may, as a whole, be contrary to that to which we adhere. We are not so egotistic as to maintain that prejudice has no place in our mental make-up, but it is our aim, as honestly as we may, in the field which we especially cultivate, to allow no preconceived opinions to interfere with our selection from whatever source it may come, the new and the useful. We aim, ourselves, to be "eclectic" in the broadest, and in the true etymological meaning of the word. If, for instance, should we believe that the effects of mercury are injurious, and that as a cholagogue podophyllin is a superior drug, it is our privilege to avoid mercury entirely, and to administer podophyllin. But because we do this we are not a dogmatist, and neither is our standing as a regular practitioner at all impaired, and because we may think that small doses are more effective than large doses, we are not a homœopathist.

We recognize the fact that the school of practitioners who (incorrectly, we believe) style themselves eclecticists have contributed a number of valuable articles to our materia medica, and we are willing to accept what they have done as an earnest of what they may yet do. We recognize them as co-workers in the same field in which we ourselves labor, and the only possible objection we have to them is that they set themselves up as dogmatists, and either allow, or wink at practices which we believe are inconsistent with those of a learned and dignified profession, these practices not necessarily pertaining to the science of therapeutics. Indeed, as far as their practice is concerned, and aside from their theories, we (in our ignorance, probably) fail to discover any valid reason why we might not consult with them at the bedside. As we remarked in our last number, in noticing a report of the proceedings of their State Medical Society, their practice bears but a slight relation to their theories. We had supposed that they were herbalists, pure and simple, but a reference to Dr. McMaster's communication

in our present number removes this idea. What, then, is an "eclectic?" A certain few, forming a clique in Cincinnati, have for a number of years been endeavoring to commit the National Eclectic Medical Association to the vagary of "specific medication," but they have not yet succeeded in doing so. And the fact that they thus seek to make the Association a tool whereby to further their own selfish and mercenary ends, is capable of conclusive proof, which we are prepared to give. "Specific medication" is not a plank in the eclectic platform. We should be pleased to know, therefore, wherein eclecticism *per se* differs from the regular school of medicine? We know, of course, a number of reasons why it would be unethical for us, as an adherent of the code of ethics to which we have subscribed, to consult with a so-called eclectic, but these reasons are strictly ethical, and are not based on what we understand to be the practice of the eclectic practitioner.

As an outsider, we could volunteer a few suggestions to our eclectic brethren which, properly heeded, would remove many of the objections which exist to a perfect harmony and oneness of their school with ours. One of these suggestions would be for the eclectics to cut themselves loose from the influence of the Cincinnati clique referred to. It is discreditable to a body of educated and intelligent men that they should suffer themselves to be dominated by a few self-constituted champions, whose aim is to manipulate the Association to the bringing of grist into the Cincinnati mill. The expose, which this clique has received by gentlemen whose standing as eclectics is unimpeachable, should be sufficient to cause the National Eclectic Medical Association to inquire into the honesty of its purpose. Such an inquiry would result in a material change in the workings of the Association.

The action of the Association, in expelling the member who flagrantly violated the rules of professional propriety in his manner of advertising, was one which will commend the Association to the respect of the community. But consistency is a jewel which the Association must regard, if it would continue to merit the respect which its recent action has won for it. Dr.

Filkins no more flagrantly violated the principles of professional and gentlemanly propriety than do members who stand high in the councils of the association. We could place our hand on shining stars in the eclectic firmament who are more, if possible, glaringly culpable of the very thing for which Dr. Filkins was expelled than was Dr. Filkins himself. Now that the Association has commenced using the pruning-knife, let its use be continued even to the cutting-off of large and plausibly appearing branches. With the expulsion of a number of its blatant, though smooth-toned, self-constituted champions, the National Eclectic Medical Association will advance itself in the appreciation of honorable and fair-minded men. Having detected the mote in the eye of one member, let it not pass unobserved the beam which exists in the eyes of a number of others.—*New Preparations.*

Inunction with Oil in some Diseases of Children.

Inunction with oil, the application of olive or salad to the skin, is probably the most beneficial of all measures for the preservation of health and the strengthening of body in delicate children, not only to prevent an attack of croup, but in scrofula and consumption, and other diseases more or less akin, and often complicated with the scrofulous diathesis, such as rickets, tabes, laryngismus, tinea, impetigo, etc., it is invaluable. In inanition from whatever cause, especially when produced by mal-assimilation or mal-nutrition, and combined with a dry and disordered state of skin, this practice of oil-inunction is of the utmost advantage. Sir J. Y. Simpson says: "In the marasmus of children, I have more than once seen oil-inunction succeed, and apparently save life, when all other means and remedies had utterly failed. When the body is much reduced by morbid eliminations, or by acute or chronic disease—as after the dysentery and diarrhoea of children—oil-inunction sometimes forms the best restorative. In rheumatism and in the chorea of the young, when accompanied by debility, it is often serviceable." The mode of using oil will vary according to circumstances, but, generally speaking, a wineglassful, slightly

warmed, so that it may be more easily absorbed, should be applied every night at bedtime over the whole cutaneous surface of the trunk and extremities, especially where it will be most readily absorbed, between the thighs, the flexures of the limbs, and the sides of the body. For obvious reasons, the night-dress should be of flannel, extending well up round the neck, and down beyond the feet, although children's night-dresses might always advantageously be of this material. To further promote absorption, warm sponging of the body might at first be employed, but, after the first two or three weeks this is hardly necessary, as less time and friction are required the longer the practice is kept up. The oil should always be rubbed in till the process of absorption is complete, requiring at first from fifteen to twenty minutes; afterward, from ten to fifteen minutes is all that is usually required. (Dr. J. Moir.)

—*Braithwaite's Retrospect.*

A New Test for the Presence of Biliary Coloring Matter in the Urine.

Nitric and hydro-chloric acids, according to M. Masset, are not as delicate tests for the coloring matter of the bile as nitrate of potassium. The urine to be examined should be acidulated by two or three drops of concentrated sulphuric acid, and a small crystal of the nitrate dropped into it. The re-action is immediately established, a beautiful grass-green color being produced, if the quantity of the biliary coloring matter is large. On shaking the liquid the color becomes uniform, and of a deep tint; boiling does not change it, and it may be preserved for several days without alteration. The addition of water simply diminishes the intensity. If the biliary matters are present in but small quantity, the liquid takes in a very short time a pale green color, which also is persistent; it can easily be perceived by placing the tube between the eye and daylight, or in front of a white background. In these circumstances, normal urine should present a light rose color. At the beginning of certain maladies, where the ordinary tests are useless, this re-agent, it is thought, will be of service on account

of the facility of its application, and the distinctness, delicacy and constancy of the re-action; further, it is not subject to the errors of observation, or the uncertain or erroneous interpretations attendant on the usual methods of examination.—*Journal de Medecine.*

A Simple Method of Preventing Mammary Abscess.

Dr. Francis J. Shepherd, in the *Canada Medical and Surgical Journal* for July, writes thus of this distressing affection:

“There is, I suppose, no accident which brings more discredit or gives more trouble to the surgeon than the occurrence in his practice of a ‘broken breast’ case. Many remedies, such as belladonna, hot oil, friction, etc., have been advocated to prevent this painful affection; but I have found none more efficacious and speedy than the following simple plan which has been used for years with great success by old women in country parts; in fact it may well be called, what indeed it is, an ‘old wife’s remedy.’ When the gland becomes indurated, painful, and has a glistening red look—symptoms, in fact, of approaching suppuration—take a large piece of ordinary sticking-plaster and cut it in a circular shape (a larger or smaller disk, according to the size of the affected breast); make a hole in the center large enough to allow the nipple and half of the areola to be seen, and apply this piece of plaster (after heating it) so that it will cover the *whole* breast, and that the nipple will protrude through the aperture in the center. To make the plaster fit more accurately, its circumference should be deeply nicked at distances of about an inch. The plaster should be left on till the breast softens or the plaster ceases to exercise even pressure. This simple method, in the half-dozen cases I have seen it used, has acted magically, the breast softening and the pain disappearing in the course of twenty-four hours. In one case, a woman, who had suffered on several previous occasions from broken breasts, came to the outdoor department of the General Hospital with all the symptoms of fast approaching suppuration in her right breast; in

fact, I considered that within twenty-four hours I should be obliged to use the knife. However, I said to the students that if there was anything in the plaster remedy, this would be a good case in which to try it. I applied the plaster in the way described above. Two days after the woman returned and said, with a pleased smile, that it was the only remedy she had ever tried that had done her any good; that on previous occasions every remedy had failed to prevent her having a 'broken breast.' On examining the breast, I found it quite soft, painless and with only a small lump of induration on the upper part, which disappeared in the course of a couple of days. In another case, where an abscess, due to depressed nipple, threatened, I applied the plaster as before, and in twenty-four hours there was hardly any induration and no pain. In multiparæ, where the breast is dependent, in addition to covering the breast with plaster, I should advise supporting the breast by a band of plaster, an inch and a half broad, passing under the breast from shoulder to shoulder. I may say that I have only used this remedy in cases of threatened abscess, due to distension of the milk ducts, depressed nipples and obstruction to a free flow of milk, due to exposure to cold. I imagine the plaster acts simply by exercising an even pressure on the breast and giving support to it."

Internal Hemorrhages.

Pyrogallic Acid.—Pyrogallic acid is an excellent internal astringent in cases of hemorrhage. It appears to me to have the following advantages: The dose is small; it does not disarrange the stomach in the way that the usual gallic or tannic acid mixtures do; it does not cause vomiting, as iron and ergot mixtures sometimes do; it is easily taken, and has no disagreeable after-taste. It appears to be more rapid and certain than any of the remedies mentioned above, and far surpasses the time-honored acid infusion of roses, or pil. plumbi cum opio. It dissolves readily in water or in spirit. A spirit solution of definite strength affords a convenient and ready method of administration. There is no reason why it should not be also

used in the form of spray in hæmoptysis, but I have had no experience of its use in this way. The dose may also be increased according to circumstances. In the *Irish Hospital Gazette* I recorded some cases of hæmoptysis, etc., in which liq. extract of ergot was used hypodermically with success. A combination of the ergot and pyrogallic acid will afford a very powerful means of arresting internal hemorrhages. (Dr. A. Vesey.)—*Braithwaite's Retrospect*.

Qualification of Doctors.

The Illinois State Board of Health has adopted the following:

“*Resolved*, That on and after July 1, 1879, the Board will not consider any medical school in good standing which holds two graduating courses in one year.

“*Resolved*, That on and after July 1, 1879, the Board will not recognize the diplomas of any medical school which does not require of its graduates the actual attendance upon at least two full courses of lectures, with an interval of six months or more.”

Physicians wishing to practice in this State, but who are not graduates of medical colleges fulfilling the above requirements, must pass the examination of the Board, which, judging from the number of rejections, is considerably more severe than that of any of the Western medical colleges. “Nonconformist” colleges, of course, denounce this ruling, but

“Rogue ne’er felt the halter draw
With good opinion of the law.”

—*Chicago Pharmacist and Chemist*.

EUCALYPTUS FOR A COLD IN THE HEAD.—Prof. Strambio, in a note in the *Gaz. Med. Ital. Lombard*, says that notwithstanding the failure of all the remedies hitherto recommended for the immediate cure of a cold, he found prolonged mastication and swallowing of a dried leaf or two of the *eucalyptus glob.* almost immediately liberated him from all the effects of a severe cold.

EDITORIALS.

BENNETT MEDICAL COLLEGE.

The Twenty-second term of lectures will begin on Wednesday, Oct. 1, 1879, and continue six months. Prof. H. Garrison will deliver the opening address. To those who know him, we need not say that a rich treat may be confidently expected.

The prospects for a full class for the coming term are very flattering and indicate that students and preceptors appreciate the advantages that are offered them. While the term of study has been lengthened to make room for a course of study wider in scope and more thorough in details, the fees have been reduced to correspond with the general reduction in prices, so that the student is offered at least one-third more for less money than he can obtain at other schools. We trust that the medical profession will appreciate this feature and give us a hearty support in this earnest effort to elevate the standard and dignity of our profession. While Chicago is unsurpassed as a medical center, the cost of living is less than in most other cities. Good board within four blocks of the College building can be obtained at prices ranging from \$2.50 to \$4 per week. Students upon their arrival should call at once upon the Demonstrator at the College building, 511 and 513 State street, by whom all needed information will be cheerfully given.

In this connection it seems fitting to call attention to the bountiful supply of "materiel" with which Bennett College is furnished direct from hospitals and asylums. Last winter, the supply was far in excess of the actual demand, and there was already on hand enough to supply the needs of the coming session, preserved by a new system of embalming which not only retains all the delicate tissues in their natural color and firmness, etc., but prevents putrefaction during dissection, and thereby lessens the danger of malignant diseases so prevalent among the students of some colleges. The faculty in this regard, as well as in many other ways, have made large

expenditures of money to promote the *health and comfort* of students while pursuing their collegiate course. For general and special dissections and for operations of all kinds upon the cadaver, our College offers exceptional advantages.

Another matter deserves notice here. The diplomas of those schools which hold but a feeble tenure on life, and especially those whose loose practices in the matter of graduation have excited public attention, and those holding two graduating sessions in one year, will hereafter be rejected by the examining boards of many States.

We deem it our duty to keep this matter before the public in order that students may not be inveigled by specious pretenses into spending their time and money to no purpose.

THE ECLECTIC MEDICAL SOCIETY OF CHICAGO.

The following officers were elected for the ensuing quarter at the last regular meeting :

President, Prof. Milton Jay ; First Vice President, H. K. Stratford, M. D. ; Second Vice President, Prof. Henry Olin ; Secretary, Prof. S. W. Ingraham ; Treasurer, Prof. N. P. Pearsen.

An interesting paper was presented by Dr. E. F. Rush upon the subject of Cervical Leucorrhæa. The Society voted to appropriate sufficient money to furnish a reading-room for the benefit of members, and also students of Bennett Medical College. A committee was appointed to make the necessary arrangements. A portion of the spacious room now occupied by the College Museum will be allotted to the Society for use as a reading-room. This will be amply furnished with book-cases, tables, chairs, racks for periodicals, etc. A good assortment of medical and scientific works for the library, and a considerable number of medical journals, are already promised. It is believed that this enterprise will be the means of great good to the Society and a great advantage to students.

The Alumni of the College and all others interested are requested to send in any books or pamphlets that can be spared, or any specimens for the Museum, to Dr. E. F. Rush, 511

and 513 State street, Chicago, Ill. It is hoped that authors and publishers will also help us, and that this undertaking may prove to be the nucleus of a large and valuable library.

A MISSTATEMENT CORRECTED.

A correspondent asks us to correct a statement which appeared in an editorial of the *Eclectic Medical Journal* of Cincinnati. We would not have our readers think that we propose to notice all the errors of that publication, although we have devoted considerable space to them of late. Our journal contains only fifty-two pages of reading matter, and we do not propose to enlarge it at present. In justice to our correspondent, however, we append a portion of his letter.

MARIETTA, Ga., Sept. 8, 1879.

PROF. W. H. DAVIS, *Dear Sir*: I saw a statement in one or two journals that I was President of the so-called National Medical Association that recently convened at Philadelphia. I wrote to Prof. Scudder to correct it, and he states that I had "ploughed with that heifer," leaving the impression upon the mind of the profession that I was connected with Buchanan. Please state that I do not, nor have I ever belonged to said Association. We have an association in this State, of which I am President, but it has no connection with any other as yet. Prof. Scudder was a great friend as long as I sent all my students to his college, but now we have a college, he seeks to put me down. I have helped him in his school and journal and that is the return I get. Yours,

I. G. M. Goss.

RELIABLE PREPARATIONS.

During the past summer, we have been experimenting to a considerable extent with drugs and preparations of drugs obtained from different manufacturers, with a view of ascertaining, if possible, whether the complaints of unreliability, uncertainty in action, adulterations, etc., were well-founded. The results obtained lead us to believe that most of the

preparations now in market are usually of good quality, and tolerably uniform in strength. Without doubt, there has been a great improvement within the past few years. The medical profession demands good and reliable, rather than cheap medicines, and manufacturers are honestly competing to supply this demand. In this connection, we may be pardoned for calling attention to some of the preparations of William S. Merrill & Co., of Cincinnati, which we have found to be especially valuable. One of the most important additions to our list of remedial agents is that preparation of *hydrastis canadensis*, known as "Fluid Hydrastis." Its essential difference from other fluid forms of the drug consists in the fact that it is made without alcohol, and hence forms a clear solution in almost any vehicle. All the alkaloids are retained in their native combinations, and the irritating resinoid rejected; hence, this preparation may be prescribed in irritated and inflamed conditions of the mucous membranes, with the happiest effects. It may be used to great advantage, both locally and internally, in all catarrhal states. As a local application in gonorrhea, it has given us such decided results that it now forms the basis of nearly every prescription for that too common disorder. For example:

R Fluid hydrastis..... ʒi—ii.
 Sulphate of zinc..... grs. v—x.
 Water, ad..... ʒiv.

M. Sig. Inject ʒi night and morning after urinating.

Another standard preparation, from the same enterprising firm, is the nitrate of *sanguinarina*. To eclectics, we need not expatiate upon the virtues and uses of *sanguinaria*, and shall have said enough in favor of this preparation when we have stated that it is the best form in which bloodroot can be employed. The dose is small—two grains to four ounces of vehicle—and the effects prompt and positive.

In the treatment of croup, diphtheritis, scarlatina, bronchitis, dryness of throat and constriction of chest, it is an efficient remedy.

A line of fluid extracts, made from the green plant or root by the house above referred to, has given us better and more

constant results than we have been accustomed to obtain from ordinary fluid extracts. The green preparations seem to perform their work best, both in respect to promptness and persistence. They are *certainly worthy of extended trial*.

BOOK NOTICES.

SEXUAL NEUROSES. By J. T. KENT, A. M., M. D. 141 pages, first quality of tinted paper, and elegantly bound in cloth.

It is gratifying to us to receive the work of an Eclectic author upon an interesting and important division of the subject of nervous diseases. While our writers have excelled in some departments of medicine and surgery, in the great field of nervous diseases their contributions have been exceedingly scanty. We hope this interesting and valuable monograph will be the forerunner of other works of a kindred nature.

The work is in many respects unique and everywhere original. In a clear, forcible and intensely interesting style, the author handles the subjects of masturbation, nymphomania, satyriasis, sexual neurasthenia, spermatorrhœa and others, illustrating these subjects by graphic descriptions of typical cases.

The chapter on sexual neurasthenia is alone worth the price of the book. The treatment recommended is simple yet based upon sound physiological principles. The application of electricity in sexual disorders is fully considered. \$1.50 free of postage. Direct all orders to CHICAGO MEDICAL TIMES, N. W. corner State and Madison Sts., Chicago.

THE SUMMER AND ITS DISEASES. By JAMES C. WILSON, M. D., Physician to the Philadelphia Hospital, etc. Philadelphia: Lindsay & Blackiston, 1879.

The third volume of the series of American Health Primers is a charming little work, full of sound advice. The chapters on summer diarrhœa and dysentery and cholera infantum are especially valuable. We hope the members of our profession are sufficiently interested in the advancement of knowledge

concerning the laws of hygiene to recommend to their patients works of this character.

PASOLOGICAL TABLE. Including all the officinal and the most frequently employed unofficinal preparations. By CHARLES RICE, Chemist, Department of Public Charities and Correction, New York, etc. Revised and improved by members of the Medical Board of Bellevue and Charity Hospitals. New York: William Wood & Co., 1879. For sale by W. T. Keener, 96 Washington St., Chicago. Price, \$1.

The entire U. S. Pharmacopœia, important formulæ from other pharmacopœias and all the more commonly employed unofficinal preparations are presented in a condensed form in this admirable little work. Its object is to establish the average dose for adults, and also the limit or danger line.

The medical press agree in pronouncing this book the best of its kind in print, and we have no doubt that it will come into general use as a handy book of reference.

A COMPLETE COMPENDIUM OF THE PRINCIPLES AND PRACTICE OF MEDICINE. By PROF. S. H. POTTER, M. D.

Prof. Potter's valuable work was reviewed in the April number of *THE MEDICAL TIMES*, but it has met with such a favorable reception, and is so highly commended by those who have received it, that we cannot forbear noticing it again in this connection. In our own practice we have consulted it often during the past summer, and have never failed to derive reliable and useful information. As a work for ready reference, we know of no book that equals it. Subscribers can still be supplied with the work free of postage, by sending \$3.50 to *THE CHICAGO MEDICAL TIMES*, N. W. cor. State and Madison Sts., Chicago.

THE ADVANTAGES AND ACCIDENTS OF ARTIFICIAL ANÆSTHESIA. A Manual of Anæsthetic Agents and Their Employment in the Treatment of Disease. By LAWRENCE TURNBULL, M. D., PH. G., Aural Surgeon to Jefferson Medical College Hospital, etc. Second Edition, revised and enlarged, with twenty-seven illustrations. Philadelphia: Lindsay & Blakiston, 1879.

A most valuable work on a subject concerning which physicians ought to be more thoroughly instructed. As a result of ignorance, anæsthetics are often timidly withheld or rashly employed. This volume is a careful revision of the original

work and the statistical history of anæsthetics is brought down to the present time. The process of manufacture of each agent, and plain and simple rules for testing the purity of each are given. The various modes of administration, requisite precautions and directions for emergencies are explicitly narrated. Every physician using anæsthetics will find in a careful perusal of this work many important suggestions. Many who have used chloroform extensively without accident will disagree with some of the conclusions of the author. In regard to the respective merits and dangers of ether and chloroform, we may say that both have their advantages, and doubtless both will continue to have ardent advocates.

MATERIA MEDICA AND THERAPEUTICS VEGETABLE KINGDOM.

By CHARLES D. F. PHILLIPS, M. D., F. R. C. S. E., Lecturer on Materia Medica, Westminster Hospital, London. Edited and adapted to the U. S. Pharmacopœia, by HENRY G. PIFFORD, A. M., M. D., Professor of Dermatology, University of the city of New York, etc. New York: Wm. Wood & Co., 27 Great Jones St., 1879.

Wood's Library of Standard Medical Authors is greatly enhanced in value by the appearance of this work. Its plainness, conciseness and simplicity, its modernness and beauty of arrangement make it attractive at first sight, and careful reading convinces us more and more of its practical utility.

A quotation from the English author's preface gives us the design of the book: "This work makes no pretension to bring forward a large mass of original research respecting abstract questions, although I believe it will be found to contain a considerable number of practical remarks on the use of drugs, which are the genuine result of my own observations. It aims, however, at bringing together in a moderate compass a more extensive series of facts respecting the action of drugs, and especially a more enlarged view of what has been done in other countries, than will be found in the ordinary text-books." This design has been carried out successfully, and the results of American research have no unimportant place in the work. This volume is devoted to the materia medica of the vegetable kingdom, and is to be followed by another, treating of drugs derived from the inorganic world.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.
ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[XLVI.]

GLIOMA (Encephaloid)

BY PROF. HENRY OLIN.

Glioma of the retina is a disease of childhood, if not exclusively, at least in the majority of cases.

The well-described and reliable cases in medical literature refer to those of tender age, and it is quite doubtful if a well-authenticated case ever occurred in the adult.

It generally originates from the outer filamentary layer of the anterior stratum of the retina, rarely from its stroma. The disease sometimes shows itself with decided inflammatory symptoms, with a cloudiness and swelling of some portion of the retina. Usually, however, the disease develops more slowly and evenly, and forms a disc-shaped swelling, which, at first, projects but little beyond the fundus, and has a flat, irregular elevation toward the vitreous.

The anterior retinal strata is, in the most cases, clear, but very much changed in its color, being affected by fatty degeneration, and in patches by sclerosis. The retina proper is enlarged through cell-proliferation and hypertrophy, and subsequently perish in the fungus. Accompanying glioma, there is, not infrequently, an exudation of subretinal fluid, and the tumor, with the discolored portions of the retina, becomes detached from the choroid, and, as the fungous growth

progresses, it involves the entire retina, absorbing it in its malignant formation, becomes thicker and thicker; on one side displacing the subretinal fluid, on the other, the remains of the vitreous, and finally completely fills the whole posterior part of the eye.

Having attained this stage, or sometimes even sooner, the growth of the tumor ceases, and the process is arrested. Not infrequently, it even recedes, the formerly tense globe becomes softer and decidedly atrophied. Beyond all doubt, glioma is capable of retrogressive metamorphosis, which manifests itself through fatty degeneration, and sometimes by condensation and withering of the structures. (Stellwag.)

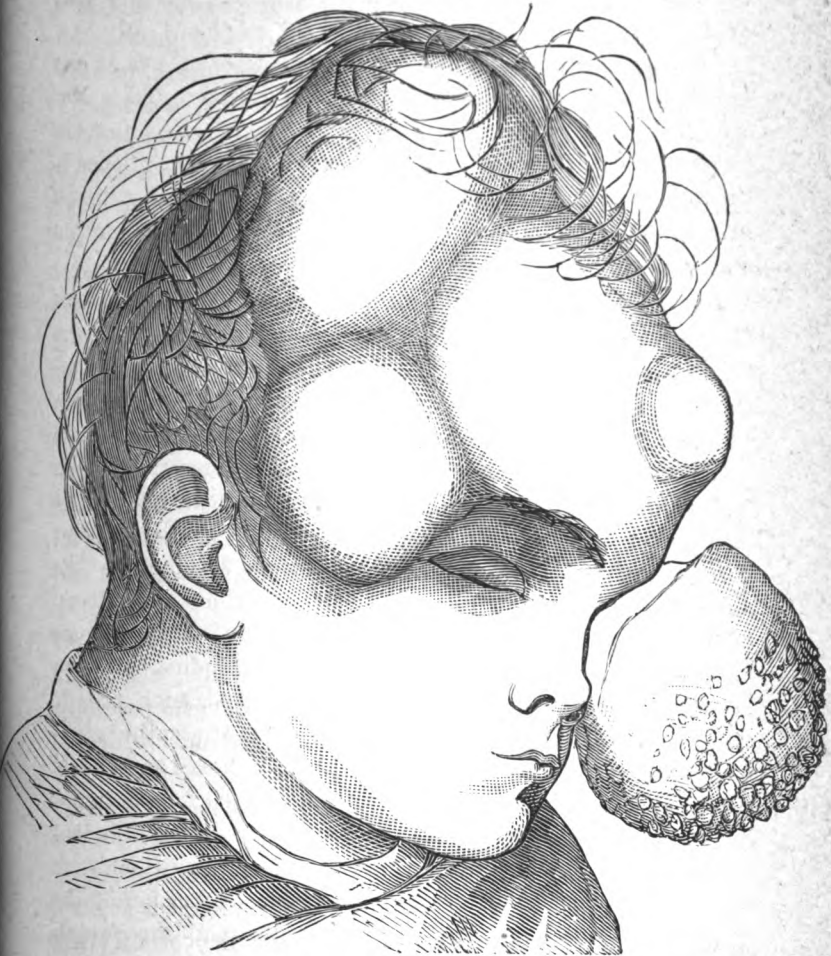
In my own experience (and I have seen a large number of cases), I have never seen a spontaneous retrogression of the disease, but a steady progression, unless the globe was enucleated at an early period in its development, and then only for a few months at the longest, and, sooner or later, the tumor develops to the destruction of the patient. In the cases that have come under my notice, even a temporary remission fails to occur only where the globe had been removed at an early



The above cut represents the appearance of the retina in the first stage of glioma.

stage of the disease. The steady growth of the fungus tumor in the vitreous chamber, filling it up, finally pushes the lens and iris against the posterior wall of the cornea, which soon becomes inflamed and cloudy from increased tension of the globe, suppurates, and the lens is evacuated and the fungus protrudes through the opening. Before the rupture of the cornea, it will be noticed that the anterior chamber is entirely obliterated and the iris lying against the posterior surface of the cornea, and, in some cases, the retina is pressed forward to the pupil, and its vessels can readily be traced over its surface by oblique illumination. We shall then notice the change

in its color, which has from a red become a dirty yellowish brown. After the rupture of the cornea, the progress of the tumor becomes extremely rapid, the glioma soon swells into a



Glioma of the retina. The right eye having been removed, the disease developing in the left and cranium, producing death twelve months after being first noticed. (After Knapp.)

large tumor, often three inches in diameter, which, with a pedunculated base, protrudes from the sclera, becomes red, bleeds easily, and, increasing continually, exhausts the patient's strength.

Glioma extends by metastasis to other tissues, and scatters its germs and excites new foci not directly connected with the primary one. This contagious quality of glioma is now almost certainly proved by many recent cases. Moreover, there is hardly a doubt that many of the retinal growths formerly described as medullary fungus or carcinoma, in which such a course was frequently observed, must be considered to be glioma. (Stellwag.)

It is not infrequently the case that, after enucleation of the eye, the glioma develops upon the end of the optic nerve, and, after a few months, appears again in the form of a red, bleeding, fungous growth, but with less pain than when developing in the globe, yet exhausting the patient until it yields in death.

In some cases, glioma makes its appearance in both eyes, and, not infrequently, secondary deposits from them are found in the thoracic and abdominal viscera, but more often in the brain and diploe of the cranium.

The diagnosis of glioma, I think, will not be difficult, as it will now seem that no other tumors of the retina occur; therefore we can, with much certainty, give an opinion in this most malignant intra-ocular disease.

The prognosis of retinal glioma is certainly very unfavorable, as, in all well-established cases, the results, without exception, have been of a fatal character. In some cases, the disease has extended to the brain, and the patient has died in a state of coma.

On the 6th of March, 1875, Dr. Clendenen, of Niles, Mich., brought to my clinic a little girl, aged two years, the daughter of G. A. McComber, whose right eye was totally blind, and whose left eye only retained a slight power of vision, sufficient to follow light in certain directions.

In the pupil of the right eye could be observed a dirty yellowish glimmering reflection, with the retinal vessels plainly visible, and the anterior chamber nearly obliterated and the pupil widely dilated, the iris being much darker than the left eye, and slight signs of corneal inflammation.

This eye was not manifestly enlarged—more tense than normal, free from pain on touch, and perfectly movable. Behind the transparent lens, and apparently close to its posterior surface, there appeared, without reflected light, a fundus of a dull, yellow, muddish color, and across its surface could be distinctly traced the retinal vessels.

This was diagnosed as a true case of retinal glioma, and pronounced incurable, although I advised enucleation of the globe to prolong life and to prevent the pain that would be quite sure to accompany the process of breaking-down of the cornea. The parents of the child would not consent to an operation, and, after a very painful and protracted inflammation, the eye finally, in July following, burst, and a large fungus tumor made its appearance through the opening, rapidly developing until it was more than three inches in length and two and one-half inches in diameter. The tumor also developed in the other eye at a later period, and, causing intense pain, finally burst the globe and protruded as in the right eye, the child dying in a comatose state, eight or nine months after being presented to my clinic. I am indebted to Dr. Clendenen for a history of the case from the time I first saw the child until its death.

In January, 1877, John C. Pirkey, of Streator, Ill., brought his little boy, 3 years old, for examination, the eye looking quite normal, yet they had observed that he could not see out of the left eye. An examination revealed a well-marked glioma of the retina; yet, at this time, the anterior chamber had not altered to any extent, and the pupil was sensitive to the action of light. I advised enucleation of the globe and as much of the optic nerve as could be reached, with a view to prolong life, lessen pain and arrest the further progress of the disease, if possible. The parents would not, at that early stage of the disease, consent to the operation, and when, two months later, I saw the child, no great change had taken place, with the exception of the anterior chamber being a little smaller and the field of vision lessened. Three months from the time I first saw the patient, I found the iris changed from a light blue to a greenish hazel, the anterior chamber almost entirely

obliterated and the pupil greatly dilated, the tumor pressing forward and looking much larger, and shaking about in the globe as though it were detached from its base and independent of the surrounding tissues. At this period, the globe had the appearance of being larger than normal, with increased tension.

On the 1st of April, I enucleated the globe with about one quarter to one-half inch of the optic nerve, and at the end of two months the eye seemed perfectly well, the little patient had improved in general health and weighed several pounds more than at the time of operation. One month later, the tumor again made its appearance, developing upon the end of the optic nerve with great rapidity, and at the end of four months more, it was three inches in length and two and a half inches in diameter—the patient sinking rapidly, and, at the end of about one month further, died in a comatose state.

I shall not attempt to give any treatment for the cure of this fatal disease, but let the reader adopt such measures as he may deem suited to the case.

[XLVII.]

A CASE IN PRACTICE.

BY J. P. MARSH, M. D.

February 22d last, I was called to attend a lady in this place, Mrs. C., aged 22, nervo-sanguine temperament, who was confined (primipara). The labor was of four hours' duration with normal presentation; safe delivery of a healthy, robust male child, weighing ten and a half pounds; placenta and membranes all delivered. Lochia followed and continued for eight days, normal as to quantity and quality. About the seventh week after confinement, lactation ceased in right mamma, lacteal glands ceased to secrete, breast became flaccid and the patient began to experience a dull pain in right ovarian region, which increased in severity and extended down the sciatic tract. This condition continued until the fifteenth week, when it ceased and the left mamma failed to secrete and became flaccid. The pain also commenced in the left ovarian region, with terminæ of sciatic tract. Lactation ceased in left

mamma, and child had to be weaned, and was given food per bottle. The pain in left ovarian region continued until the seventh month from time of delivery, when I was called one night at 11 o'clock to see the patient; found she had had no appearance of molimen since confinement. She was having pains which so closely resembled true labor-pains, that I made the remark to her that she had "something in utero that had to come away." Upon examination per digit, I found the uterus well down in pelvic cavity, with os dilated to the size of a silver dollar. After waiting an hour, I saw no progress, and I gave her a half teaspoonful fluid extract ergot squibbs, which was followed in about half an hour by expulsion of a male child, measuring five inches in length, developed in body, limbs and symmetry, and weighing fifteen ounces. The placenta detached and came away intact, followed by lochia for four days, when it ceased and the patient sat up, and the ninth day after second delivery she was taken with pain again in both ovarian regions, and, as I was not in town, Dr. Armstrong was called, and found the patient suffering severe pain with profuse hemorrhage.

He administered morphia and plumbi acetat to control pain and hemorrhage, but the remedy failed. The doctor and husband of the lady both became frightened and sent for me post haste, having just returned from the country. I went immediately, and upon arrival saw indications of expulsive efforts of the uterus, and spoke to the doctor, telling him there was something yet in the case that was the basic cause, and it was my opinion we would find some intra-uterine formation if we were careful in conducting the case to its termination. The doctor said he was nonplused, and should leave the case entirely under my control. I then gave the patient the following: *R. Maerotin, Secale Cor., aa. grs. v*, which was promptly followed by expulsion of a mass the size of an orange, when the pain ceased and hemorrhage was controlled. We then proceeded to wash the mass and cleanse it of clot, and found a multilocular growth composed of fifteen sections, ranging in size from a pea to a musket ball, pendant from an axis the size of the little finger, composed of a tough fibro-tissue. The

patient had lochia for four days, made good recovery, and lactation has returned again.

Query 1. Did this exist at the time of her first delivery?

2. Was the second child a twin-fellow of the first, as it was seven months from one birth to the other, and no molimen between.

3. What process of evolution caused the intra-uterine growth.

4. Why independent of amnion and chorion membrane?

5. Was it muco-fibroid.

6. What is the pathology of the phenomena?

KIRKWOOD, Ill., Oct. 13, 1879.

[XLVIII.]

CHRONIC HYDROCEPHALUS.

BY J. T. KENT, M. D.

Hydrops cerebri is a resultant phenomenon of a variety of pathological changes; sometimes of congenital malformation, inflammatory obstructions, adhesions, etc., of the ventricular communications and openings. Owing to atrophy and the extreme diaphanous appearance of the pia mater, at times coupled with the fact that the disease, in the primary stage, is of infantile origin, the term *leptomeningitis infantum* has been selected by authors, but, as yet, has not been applied to other than an acute inflammation of the pia mater, resulting in intra-cranial effusion. This is usually, though not always, admitted to be the primary or forming stage of what finally becomes a chronic hydrocephalus, providing death does not intervene or recovery immediately take place.

The tendency is to dispense with the term hydrocephalus and to select a name that points more especially to the morbid anatomy, but this has thus far been impossible, as cranial hydrous accumulations are depending upon such a variety of unknown causes that no term has yet been suggested that seems quite as satisfactory as the old one—chronic hydrocephalus. We are hardly advanced enough in specific pathology to drop the old term from our nosology.

The acute and chronic forms of hydrocephalus have been described by authors from an early period in medical history. The chronic form which is the premise of this paper, runs its course very slowly and its pathology is often clouded and obscured, even at this advanced day of medical investigation.

If the anatomy of the brain, spinal cord and meninges be constantly held in view, it will be observed at a glance that the general purpose of nature is to maintain at all times an equilibrium of the circulating fluids and cerebro-spinal fluid, or equal brain pressure, *i. e.*, the cerebro-spinal fluid should exist, in inverse ratio to the amount of blood circulating within the cranium.

At all times during health, a small quantity of cerebro-spinal fluid should be found within the lateral ventricles ready to flow out through the *iter e tertio ad quantum ventricula* into the fourth ventricular cavity, and through an opening in the floor of the fourth ventricle (cerebro-spinal opening) into the arachnoid space to form a cushion by which concussion may be avoided, from sudden jar or violence.

It is highly probable that the secretion of this fluid is continuous, and that any deviation of absorption may, in a short time, become a cause of a superabundance of cerebro-spinal fluid, and constitute a true hydrocephalus.

Such a failure in the absorption process may follow trophic disturbances or a low type of inflammatory action, either of which would not likely diminish the secretion of fluid; but might, under some circumstances, be a cause of a great increase in its quantity, even to constitute a hydrocephalus.

Again, with or without the foregoing conditions present, any obstruction of either the aqueduct of sylvius or cerebro-spinal opening may cause, and on numerous occasions has caused, a chronic accumulation within the brain and death. Such an obstruction may be congenital, or brought on by inflammatory adhesions and is essentially chronic in character.

Two distinct species of chronic hydropr cranii exist, and may, occasionally, blend into a multiple dropsy. The intra and extra cerebral accumulations exist, and may, occasionally, both combine to form a general hydrocephalus.

This disease, as it were, generally considered, is of infantile life, and, not uncommonly, begins during foetal existence, and, occasionally, does not terminate in death until adult age, or even until the middle period of life, and, with a small accumulation, a moderately old age has been attained. Death from this cause has, many times, terminated the individual's existence where dropsy had not been suspected.

In my opinion, it is safe to remark that a large amount of fluid, even to abnormality, may remain within the cranium during a long and active life, without deleterious results or discovery.

It is not uncommon that a hydrocephalic, still-born infant has come to its death by the pressure of the pelvic bones or the accoucheur's forceps. Such pressure is generally fatal to the foetus whose brain, in such a diseased state, is so illy prepared to sustain the yielding necessary to pass the bony canal in its exodus from the pelvis. The magnitude of the foetal head may prevent its natural exit, and the forceps, which are indispensable to the life of the mother, may do irreparable damage to the brain of the child, and it succumbs in convulsions in a day or two if not still-born. But, commonly, the enlargement does not begin until the child has advanced to an age of three to six months. In the prodromal stage, the symptoms only lead to mere suspicion of the true nature of the malady. This prodromal period is only observable in a certain class of cases, such as pass it after birth. In such cases, it should be regarded as quite essential to distinguish the true character of this disease early, that encouragement be not held out to the parents; even before much enlargement has occurred, it may detract from the reputation of the physician not to be able to recognize the disease early, or to hold out inducements or make an unwarrantable prognosis.

Treatment is often had recourse to for numerous conditions, between the symptoms of which and those of hydrocephalus, there may be often a marked similitude. Such precaution applies especially to cases where enlargement does not become noticeable until the child is five or six months old. The symptoms are more active and violent during the prodromal

stage, or before marked enlargement of the head has taken place.

Constipation, in my experience, has been present, in nearly all cases, as the first noticeable complaint to which the mother calls the physician's attention, and is a very troublesome condition, from the fact that medicine has little effect for relief. But finally, by strong doses, the torpor changes into diarrhoea, which is more troublesome still. The discharges are greenish or clay-colored, and vomiting often becomes a prominent feature, with few head symptoms, if any, that attract attention.

If it be the season for cholera infantum, there will be a great liability to mistake the condition; or teething may obtain the credit, and very kindly cover the doctor's mistake.

Head symptoms may come on violently and close the scene. In such cases, the pia mater has been found the cause of the trouble, and it is to this feature of the disease that the term *leptomeningitis infantum* has obtained a place; but where the child has been carefully managed from the beginning, the case is protracted; passes beyond the prodromal stage, and becomes a true chronic hydrocephalus.

There being no pathognomic symptom in this stage, is a strong reason that much judgment and caution should be exercised in what may be said or done. The physician, if undecided, has not long to watch to find that he has made a mistake, and a new doctor in his place, who, perhaps, discovers the true nature of the case. The precaution should always be taken to be constantly on the lookout for cerebral and ameningal troubles in persistent bowel disturbances of children, whether manifested by constipation or diarrhoea. It is far better to have our suspicions aroused early and be finally proven wrong than to give an opinion that the trouble is entirely in the bowels, and suffer the chagrin of having made a mistake. It is important for the physician to keep the safe side, and, in order to do so, he must fully apprehend the gravity of such intractable symptoms.

As the disease advances a few months, if we observe the patient is becoming stupid at times, alternated with crying when disturbed, and in addition to this, the diarrhoea and

vomiting continue, the tongue is flabby, or red at tip and edges, with a tendency to convulsive movements, and especially nystagmus, gradual emaciation and strabismus, we can but feel satisfied that the condition must be looked for within the cranium.

Again, as treatment is resorted to, we find additional evidence of the character of the disease in the fact that treatment is of little, if any, service in staying the progress of the disease. If to the above there be added enlarged fontanelles, with soft, elastic feeling to the touch, our diagnosis is certain. The strabismus soon becomes a prominent feature of the picture.

As the enlargement of the head advances, we notice the body is losing in magnitude, apparently, or, at least, is not keeping pace in development with the head. The fontanelles are becoming enlarged, instead of closing, and, as Watson has said, "We see little islands of bone in seas, as it were, of membrane." The cranial bones become thick and massive in proportion; the sutures are widened and opened, with bone centers in membrane. The forehead is square, and often projecting; the child fails to support it, and it falls or topples over when the body is placed erect.

Joseph Marlin's child, now under my professional care, is a typical case and one of great interest. Some six months since, my friend, Prof. Pitzer, saw me measure this child's head. The child was then about twelve months old. The tape passed around the head at the greatest circumference—over the orbital ridges, parietes and occipital protuberance—marked a measurement of $24\frac{1}{2}$ inches; when passed under the base of the skull and over the top of the head, $23\frac{1}{2}$ inches were indicated. The anterior fontanelle was three inches across, with seeming consolidation of the sutures laterally. Now, six months have elapsed, and the above measurements have each increased over one inch. The child's body, at that time, had been growing well for three months, and is growing well now. Indeed, the child is in excellent health, but in development has not kept pace with the growth of the head. When this child was three months old, it had passed through constipation, diarrhoea and

the usual active symptoms, which were very troublesome, and formed a disease-picture in symptoms much resembling *hydrocephalus acutus sine tuberculis* of authors. Small doses of bromide ammonium seemed to tide over the inflammatory stage, and assumed a chronic type, and dropsy has finally become the most prominent feature. Since these active symptoms have subsided, a marked improvement in the general health has been observed. It is now some months' time that the child has remained in perfect bodily health, eating and sleeping well, and, were it not for the great and cumbersome head, no person would think of its being a sick child. The strabismus has been prominent from the first sign of enlargement, and has kept pace with the latter. But in this case, as commonly, the strabismus does not depend upon the contraction of ocular tendons, as much as upon the tense scalp and occipit frontalis, which seems to be too short

(To be continued.)

[XLIX.]

TRUTH STRANGER THAN FICTION.

BY HENRY OLIN, M. D.

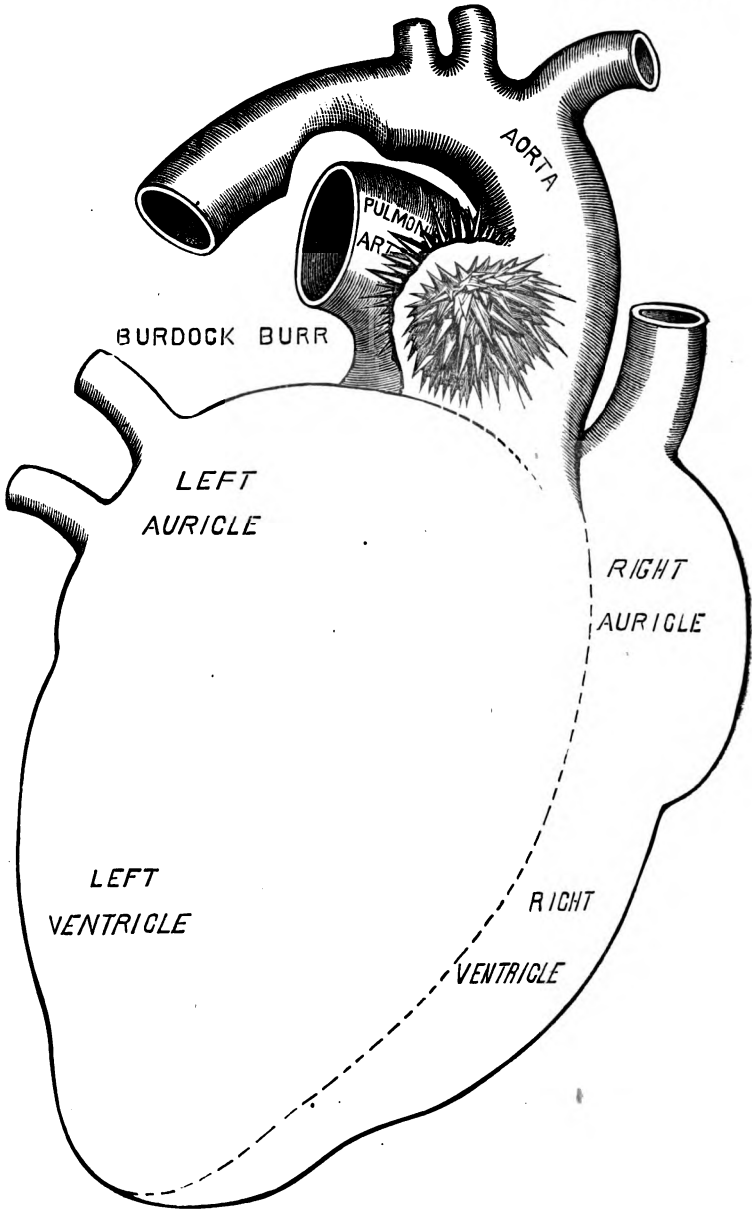
I have in my possession a human heart, preserved in alcohol, which I invite the profession and the public to examine.

Now what I wish to find in all this broad land, even in the glorious climate of California, is a sane man, possessing average jury intelligence, or the grandest scholarship, be he physician or layman, who will inspect this heart and will not thereupon instantly admit that he is in his own mind entirely convinced of the following propositions:

1. That the specimen was once a living, throbbing, beating blood-diffusing organ.

2. That there is firmly imbedded at the base of the heart, and lying between the aorta and pulmonary artery, a burdock-bur, which is surrounded by organized tissue and nearly enveloped by it. This burdock-bur, undoubtedly, having been in this locality for a long time as the organized tissue surrounding it was gradually produced by lymph deposits enveloping the intruder and keeping it from doing further damage.

3. That this burdock-bur could not have been put in place as it now is by human agency, either before or after the death



of the subject, and must have been in its present position while the person from whom the heart was taken was alive.

Whenever the profound wisdom of the *Pacific Medical and Surgical Journal* and the splendid wit of the Cincinnati *Eclectic Medical Journal* shall have made this examination which I invite, and shall have pondered well over this truly wonderful pathological specimen, I venture to say that an admiring world will no more be edified by erudite reference to "King George and his dumpling," and the public will no more be informed in refined and classical diction, that "we have dam-phools in our branch of the profession as well as in the regular," because, forsooth, some humble seeker after truth dares to suggest that nature handled this terrible intruder in a living breast by methods which are immutable by human hands.

I submit that on the part of persons who have not investigated the facts, something more than witty allusions and coarse epithets are necessary before a fair minded public or learned profession will dismiss from consideration and attention the case which I here present, and furthermore, it may be recollected that to the speculations of persons who have been denounced as lunatics, we owe some of our grandest triumphs in modern scientific discovery, and that the days are past when one can gain estimation among the truly learned by branding on the forehead of every man who advances a new idea the word "dam-phool."

[L.]

MEDICAL EDUCATION.

Continued from page 321.

The whole professional life of the good physician, from necessity, is one of close study and careful observation, or, correctly stated, a life of continued education. I apprehend that the longer we live, the more we feel the stern necessity of more knowledge, new investigations and a better method of treating disease. A physician who is egotistic or opinionated, one who assumes to know about all that is worth knowing (there appears to be some of that kind)—well, "they are

joined to their idols, let them alone." "Seest thou a man wise in his own conceit; there is more hope of a"—etc. Words fitly spoken are like apples of gold.

Diseases are ever varying; no two cases are ever precisely alike; there are features in diverse constitutions which require very different management in similar diseases, and there is always a wide range for the special exercise of acute discernment, sound discretion and sense. We must be ever on the alert in the proper discharge of duty when the valuable time, relief from suffering and often the jeopardized life of our confiding patrons are committed to our care. Our whole business is of this character.

Any physician of ripe experience can readily call to mind a number of patients *lost* under his care; but later experience, more knowledge and careful observations enabled him to easily cure such or even more grave cases of the kind. It is a sad thought that our incompetence lost a confiding friend and patron, who, perhaps, was the head of a large family—a father or mother, an only son or daughter—each life as valuable as our own. That any practitioner can be eager to rush into practice without a long, thorough and wide course of preparation, seems inexplicable to common-sense people.

True, "the *workman* is worthy of his hire," but a botch is not. Those who aspire to the medical profession solely to make money, to make it merely a mercenary pursuit, will prove a sad misfortune to the people in their fields of practice, whose maladies and credulity are "bulled and beared," like the stock-market, by greed for gain. Let none deceive themselves who aspire to the affix of M. D. to their names as an honorable title, without real merit, because ignorance is made manifest when wisdom is assumed. An ape clothed in royal robes and crowned with a diadem is a ludicrous exhibition.

The requisite qualifications for a successful medical student, as well as practitioner, may be briefly stated as follows: Honesty of purpose; a desire and determination to succeed; energy and perseverance; good discernment; sterling integrity; courtesy, patience and kindness under the most trying

circumstances. The kind and gentle hand can lead an elephant by a single thread. *Self-trained skill and perseverance of the man himself gives success.* Foreign or outside facilities, however great and at whatever cost, fail to attain merit and honor in any pursuit. The elements of these must exist in the man, the subject and the occasion. None are too poor to extemporize any needed facilities for investigation and continual self-improvement. Opie was asked by what wonderful process he mixed his colors. "I mix them with my brains, sir," he replied. This is the source of excellence. Ferguson made wonderful things, such as his wooden clock, with only a penknife, that accurately measured time. A pan of water and two thermometers were all the apparatus with which Dr. Black discovered latent heat, and enabled Newton to unfold the composition of light and the origin of color.

Dr. Woolaston was called upon by an eminent savant to see his laboratories, in which science had been enriched by so many important discoveries. The Doctor took him into his plain and simple office, and pointing to an old tea-tray, containing a few watch-glasses, test-papers, a small balance, and a blow-pipe, he said, "There is all the laboratory I have." By closely studying butterflies' wings, Stothard learned the art of combining colors. Bewick began learning to draw with chalk, on cottage walls; and Wilkie commenced with a stick, on a barn door, instead of a pencil and canvas; while Benjamin West made his first brushes out of cats' tails.

Dr. Franklin first took lightning from the thunder-cloud by means of a kite, made of two cross-sticks and a silk handkerchief. Ferguson laid himself down in the fields at night, in a blanket, and made his first map of the heavenly bodies by means of a thread on which small beads were strung, and stretched between his eyes and the stars. Guilford worked his first problem in mathematics when a cobbler's apprentice, upon scraps of leather he beat smooth for that purpose. Watt made his first model of the condensing steam-engine out of an old anatomist's syringe, used to inject the arteries for dissection; and the great astronomer, Rittenhouse, first calculated eclipses on his plow handles.

With these simple tools, great men began their noble work of life and usefulness. Need any despair, however indigent or humble? Self-made men and women chiefly lead and control most of the vast enterprises in this great free land of ours.

S E L E C T E D .

The Present State of Therapeutics.

AN ADDRESS DELIVERED AT THE OPENING OF THE FIFTY-SIXTH
COURSE OF LECTURES IN JEFFERSON MEDICAL SCHOOL.

BY ROBERTS BARTHOLOW, M. D., LL.D., PROFESSOR OF MATERIA
MEDICA AND GENERAL THERAPEUTICS.

Reported for The Medical Record.

I heard, but few years ago, a very able teacher, himself a Professor of Practice, declare that if the four great chairs of Anatomy, Surgery, Practice of Medicine and Obstetrics were well filled in a medical school, it was of little consequence who occupied the others, and as for Materia Medica and Therapeutics, any old woman could teach that. His was the traditional old woman who knew how to prepare catnip, tansy, and similar teas, and on special occasions could administer castor oil, an amount of therapeutical knowledge sufficient now for the leaders of French medical practice, if we may credit some recent reports from Paris.

Scientific physicians have usually held therapeutics in small esteem, doubtless because it had small deservings. In Bichat's time, it was a feeling of contempt which found expression in his famous declaration: "Materia Medica is a shapeless mass of inexact ideas, of observations often puerile, of imaginary remedies, strangely conceived and fantastically arranged." No one possessed of any knowledge of the subject, could now, on examination of the therapeutics of that day, deny the justice of Bichat's denunciation. It was an incongruous mixture of empirical notions, based on the crude theories of various medical philosophies, partly humoralist, partly solidist, partly of the Italian contra-stimulant school. It embraced the mechanical and chemical theories of the great Boerhaave, the vitalistic

mysticism and the expectant practice of Stahl, and the solidist theories of Hoffman. The whole mass was hardly in advance of that condition of therapeutics against which were levelled the shafts of Montaigne, the jests of Moliere, and the morbid fancies of Rousseau. In fact, it was not until the birth of modern physiology that scientific therapeutics became possible, and that epoch was at a period within the memory of men now living. It may seem almost incredible, but it is true, that any considerable body of scientific facts in therapeutics has been the product of the last twenty years, for scientific therapeutics must always follow the course of discovery in physiology. Even now, there must necessarily be two methods pursued in advancing the knowledge of therapeutics: The empirical or rational, and the physiological or scientific. The empirical method is based on the principle, as ancient as our art, that a remedy which has cured a case of disease must also cure analogous cases. The scientific method is the application of physiological research to ascertain the actions of medicines, and on this sure basis is predicated the use of remedies in the treatment of disease.

The inherent difficulties of the subject, it must be admitted, are in large part responsible for its tardy development. In part, its slow progress is due to an unreasoning conservatism, which admits of but one road to the acquisition of truth. Even now, there are many so-called practical men who are disposed to sneer at physiological therapeutics, and to make themselves unhappy over achievements which experience can utilize, but has had no agency in accomplishing. They should reconcile themselves to the inevitable by the philosophy of the old Spanish proverb, "*Let the miracle be done, though Mahomet do it.*" They should be satisfied with the progress of truth, though they may not approve the means by which that progress has been achieved.

But the most vehement re-actionists are yielding to the force of therapeutical discovery accomplished by physiological methods.

Thus, one of the most eminent therapeutical authorities of our day has declared in a preface written so recently as October,

1874: "In the first edition of this work, the author contended against the mischievous error of seeking to deduce the therapeutical uses of medicines from their physiological action. Continued study, observation and reflection have tended to strengthen his convictions upon this subject, and to confirm him in the faith that clinical experience is the only true and safe test of the virtues of medicines." The same author, in another work on the same subject, after another five years of study, observation and reflection, says, in a preface dated 1879: "Whenever it seemed possible, an attempt to apply the results of physiological experiment to therapeutical uses has been made, for, although the two fields of inquiry may not be so organically connected as to render the former a guide to the latter, it is nevertheless true, that a scientific explanation of the curative powers of medicines must be sought in the results of their experimental operation upon the animal functions."

No revolution of opinion could be more complete, no renunciation of heresy more absolute. In 1874, empiricism is the true guide; in 1879, physiological experiment. This, though somewhat sudden, is significant of a change which is taking place in the last strongholds of empiricism. Such a quotation must satisfy the doubts of all—and they are legion—who respect authority and are governed by its utterances.

I hope I shall not be misunderstood. Far be it from me to abate one iota of the just fame of the author whose works I have quoted, or to impute inconsistency in his opinions, or to cast doubts on the accuracy of his judgments. I quote his words to demonstrate the revolution which has taken place by the application of the modern, scientific methods, with results so convincing that the deepest convictions from wide learning and extended experience are made to yield. Honor and praise rather to the honesty of him who can surrender his own cherished convictions rather than do violence to truth.

Revolutions do not go backward, and they are apt to be radical in medicine. Furthermore, it is surprising to what extent fashion rules current medical opinion and modes of practice. Do the leaders in medical thought take a certain direction, their followers will pursue pell-mell. This is observable now in the

revolution which has taken place with respect to empiricism in therapeutics, and, in certain quarters, there exists a disposition to ignore all that has been accomplished by it, and to rely exclusively on the physiological method. This extreme tendency ought to be resisted in so far as there is danger of putting aside some of our most valuable acquisitions. It is far wiser to possess us of every aid which either method can offer, to accept the scientific facts which an exact physiological research can contribute, and to retain and extend that knowledge, the truth of which has been confirmed by the experience of generations of accurate observers. In fact, when we come to investigate the subject, we find that the physiological method is not free from sources of fallacy, from contradictory observations, from conclusions that subsequent investigations show to be erroneous. I freely admit that it is less hampered and overgrown by errors and contradictions than is the empirical method, but there are uncertainties and confusion which ought, if possible, to be eliminated. The first step necessary is to have a clear conception of the sources of error, and I think we may spend a part of this hour very profitably in an attempt to measure them. The important question is: What are the difficulties in the way of right conclusions respecting the actions and uses of our remedies, especially their value in the treatment of disease?

We may certainly place foremost the imperfections of man, the limitation of our faculties. Then comes the absence of the necessary training, or its insufficiency, and the utter lack of power of logical analysis in many of those who occupy the position of authorities. These mental defects and faults of training can never be overcome. "In the conduct of life," says Mr. Mill, "wrong inferences and incorrect interpretations of experience, unless after much culture of the thinking faculty, are absolutely inevitable; and with most people, after the highest degree of culture they ever attain, such erroneous inferences are as frequent, if not more frequent than are correct inferences correct interpretations of experience." Such being the case, it is not surprising that in a matter so beset with fallacies as the estimation of the curative power of a remedy, that

there must be few qualified by natural powers and by training for the task. The best equipped and most carefully trained intellect may not possess the power of observation; it may be unerring in the conclusions formed from the facts submitted, but the faculty of discernment, of seeing things as they exist, may be deficient or inaccurate. That which Mr. Mill calls "mal-observation," consists in "something that is not simply unseen, but seen wrong." With the best intentions, the purest conscientiousness, men making observations—trained observers—differ surprisingly in their accounts of events occurring on a particular occasion. A capital illustration of this fact has been afforded by the discrepant accounts from the observers of the corona and the solar protuberances. Observed with the same instruments under the same conditions, the various operators have differed widely, with the usual result of heated controversy. An ingenious theorizer has shown that the difference lay in the eyes of the observers; some were normal, some were astigmatic, myopic, etc. As in Turner's pictures, the artist's oddities appeared when he had lost somewhat his appreciation of the harmony of colors. Not long since, Klein saw, in investigating the changes in typhoid, a minute organism which seemed to have an important relation to the genesis of this disease, and there was much enthusiasm expended over the discovery, but in a few months a terrible iconoclast disposed of the discovery at one blow, by showing that the supposed organism was nothing more than a bit of albumen, altered by the re-agents used in making the preparation. How much easier to form accurate conceptions, and give correct descriptions of things submitted to the evidence of our senses, than the phenomena arising from occult processes in the human body. Unfortunately, many of those occupying the position of authorities, always discern that which their preconceived opinions led them to search for; other observers look at facts with vision tinted by what Mr. Spencer calls the "professional bias;" in a variety of ways, the thing is not simply unseen, but seen wrong. The salutary lesson which we learn from this, is, we cannot be sure that the things which we suppose we see are actually before us, and the other and higher lesson

of patient waiting and study of our supposed facts, and comparison of them with the facts of other observers.

If we observe correctly as to the range of utility of a medicine, we may fall into error in its use by ignorance of the natural behavior of the disease in which it is exhibited. Before any exact knowledge was possessed of the natural history of diseases, it was simply impossible to be accurate in respect to the influence of medicines over them. Before it was known that a crisis occurs in pneumonia somewhere from the fifth to the eleventh day, endless were the controversies as to the influence of remedies in bringing this crisis about. How valueless became all those discussions, carried on with such earnestness and heat, when the natural history of pneumonia was made out, and it was discovered that medicines had never produced the crisis, which is an entirely natural process. Most important additions have been made to the natural history of diseases within a few years past, and we have now a sure point of departure for the investigations of the future. I affirm this, notwithstanding the pessimistic declaration of Dr. Andrew Clark, made before the medical section of the British Medical Association at their last meeting, at Cork. He declares that "of the natural history of most chronic diseases—of their course from first to last, of the modes in which the organism, uninfluenced by drugs and favored only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issues either in recovery or death—we know almost nothing, and certainly not enough for the commonest purposes of therapeutic art." The wholesale iconoclasm of this address is everywhere remarkable, but in nothing has his zeal so outrun his discretion as in these statements. I need mention but two classes of chronic diseases to demonstrate the error of his statements; the chronic cardiac and renal affections, in regard to which we know their course from first to last, and how the organism, uninfluenced by drugs and favored only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issue either in recovery or in death.

It may seem a comparatively easy task to determine how far the mind influences the bodily functions in modifying the phenomena of disease, but it is extremely difficult to measure the operations of a force whose nature and source are unknown, and whose powers are exercised capriciously, and without the reign of law. A curious and most interesting book, compiled by Dr. Tuke, has lately been published, in which are brought together more thoroughly than ever before the facts scattered through medical literature, illustrating the influence of mental states on bodily functions. No one can peruse this book without being strongly impressed with the uncertainty which must attend our estimate of the influence of remedies in all of those conditions of disease over which a peculiar mental force may exert a far greater curative power. Everybody has been more or less familiar with the well-attested facts which have existed on this point, but when they are brought together, analyzed, and their lesson comprehended, we are simply amazed to find that many morbid states, which medicines had failed even to modify, are removed or cured by a force emanating from the mind. If this mysterious force moves, how impossible to form a correct judgment of the share which a medicine or a plan of treatment had in the result.

When Sir Humphrey Davy, then a young man unknown to fame, was employed by Dr. Beddoes to make observations with nitrous oxide, among the patients who presented themselves for treatment was a paralytic. Before commencing the inhalation of gas, Davy inserted a thermometer under the patient's tongue to ascertain the influence of the gas on the temperature of the body. The patient was greatly impressed with the mysterious little instrument, and declared, with much enthusiasm, that he felt the influence prevailing his entire frame, and was already much relieved. Davy, observing the remarkable influence of hope and expectancy, did nothing more than gravely insert the thermometer day by day, with surprising results, for, in a short time, a complete cure was effected. If Davy had administered the nitrous oxide, the case would have appeared in medical annals as a cure of paralysis by the gas.

When a *religieuse*, in Cincinnati, with prayer and fasting, and after a solemn service in which all of her sisterhood participated, threw herself at the foot of the altar and would not rise until healed—behold ! an ulcer of the leg, resisting all other means of treatment—was cured by some drops of water, coming from the far-off, mysterious and sacred spring of Our Lady of Lourdes. In the one case it was a mere impression on the mind without the element of religious faith, a mere dependence on the efficacy of dumb glass ; in the other, a profound religious sentiment, than which nothing more powerful can sway the human heart, and yet the result is the same.

When we come to analyse the examples of diseases cured by powerful impressions, emotions, faith, hope, expectant attention—whatever the nature of the mysterious force—we find that the cases can be referred to one of two classes ; to functional morbid states of the nervous system, or to alterations of structures—organic changes they are called, brought about through the agency of the trophic nervous system. Everybody is familiar with the plentiful examples of the first group, and the second needs no explanation to Philadelphia physicians, for in this city work has been done that has materially advanced the knowledge of the subject. In these two large and important groups of diseases, so much does the cure depend on merely psychical impressions, that it is difficult—often quite impossible—to determine how far the mental state, how far the remedies employed, contributed to the result. The practitioners of that medical jugglery who cure diseases by prayer and the imposition of hands, or by the gifts of the natural healer, understand full well the form of malady suitable for their powers. There is now, in the State of Massachusetts, a preacher-doctor who cures by prayer and the imposition of hands—the apostolic method—and therefore denies to his grateful patients the privilege of recompensing him, except by voluntary gifts. The pecuniary outcome of his benevolence is something remarkable, for he has now built up around him on his domain of several hundred acres, a number of stately dwellings for the reception and care of the thousands going to him from all parts of the United States. A patient of mine, a genuine Christian and a

woman of the highest excellence, though somewhat credulous and a little superstitious, having heard of the wonderful cures wrought by this Massachusetts apostle, resorted to him. I had from her own lips the story of her experience. She told the great man that she was a firm believer in the efficacy of prayer, having met with many examples, and that she had come all the way from Ohio to be cured of an organic affection of the heart. When the doctor-preacher heard the nature of the malady, he made a reply, in which, astonishing as it may seem, she saw no incongruity. He said: "My experience is, that the Lord rarely, if ever, interferes to cure organic disease of the heart." Nevertheless, he expressed a willingness to try, as she had come so far, and, with hands on hers, he did pray fervently, in which she joined as fervently, for half an hour at a time on three days; but my patient experienced no relief, and came home the worse for the moral struggle which she had undergone. My client, as did all who came, it is probable, left a considerable fee in the form of a gift, and was not cured of her delusion, for she heard of numerous miracles that had been wrought there, and she witnessed on all sides the evidences of worldly prosperity; and she may have inspected, for aught I know, the arsenal of crutches, canes, and ear-trumpets which these artists exhibit in proof and confirmation of their powers.

When anæsthesia by the inhalation of ether was demonstrating in the Massachusetts General Hospital, Dr. Elliottson, of London, was engaged in a far more wonderful work, teaching the great lesson, that in a mesmeric sleep surgical operations can be performed without consciousness of pain. So zealously and completely, although in the face of much obloquy, had Elliottson succeeded in convincing skeptical and conservative London of the genuineness of his work, that the discovery of the production of anæsthesia by the inhalation of ether was announced in the *Medical Gazette*, under the heading, "Animal Magnetism Superseded." Up to this time, the capital operations in surgery were almost daily performed in London, whilst the patients were unconscious in the so-called mesmeric sleep. Although Elliottson misinterpreted the phenomena which he observed, and became involved hopelessly in the

absurdities and mysticism of Mesmer, he was, nevertheless, engaged in the demonstration of important truths. If time would allow, I might enter more fully into that remarkable state in which there is a suspension of the methods of consciousness, and show, indeed, that the recent observations of Czermak and others on animals, is an experimental induction of the same state. It seems, indeed, that the condition of the brain in which a peculiar curative influence is exerted over morbid processes is the opposite of that state in which the activity of the perceptive and volitional centers is in absolute suspension.

Closely allied to this subject are the remarkable phenomena of Burquism, or metallotherapy, which at first excited the ridicule of the scientific, but which seems now likely to contribute to our knowledge of this outlying department of mental and nervous processes. The results obtained by Burq, and especially by Charcot, are such as to merit the close attention of therapeutical investigators, and must, if confirmed, enter into the question of the curative powers possessed by certain remedies.

We constantly hear physicians complaining that the published results of others, in respect to the utility of a particular plan of treatment, cannot be realized in their own experiences; that, although Davy cured paralysis by the inhalation of nitrous oxide, they cannot succeed, although they have carefully observed all the conditions of the experiment. They entirely overlook the fundamental fact that one physician summons to his aid the mysterious mental force in hope, faith, expectant attention, and another represses it, not consciously to himself, by a lack of personal enthusiasm, and still more by a lack of confidence in his own powers and in the power of his remedies, fatal defects in the character of the physician, which will not escape the keen scrutiny of the anxious patient. I will not use the vulgar term "personal magnetism," for it has no meaning, and the power is not a magnetic quality or power, not a mysterious gift possessed by the chosen few. That which inspires a supreme, unquestioning, all-pervading belief in the efficacy of the means proposed, is a reflex of the confidence of the physician; not a boastful, self-asserting egotism, not the

blind faith of ignorant credulity, but the well-founded convictions of the enlightened therapist, confident in his resources from long experience of their capabilities. "The Lord is on the side of the heaviest battalions," was a favorite saying of the great Napoleon. I hope I shall not be understood to speak in an irreverent spirit. My purpose is to illustrate the lesson, that "God operates, not by partial, but by general laws;" that He gives us the faculties to acquire and to apply knowledge in the treatment of disease; that He does not suspend the laws of nature for our benefit; and that those cures which seem miracles are entirely human, and easily explicable.

We derive from the whole subject the important lesson that we have, in a peculiar mental state or condition of the great nerve-centers, an extraordinary curative power in a large group of diseases, and that in this fact lies one of the greatest sources of fallacy in estimating the value of remedies. Furthermore, it must be obvious that the physiological as well as the empirical method, are embarrassed by wrong inferences and incorrect interpretations of experience.

The progress of applied therapeutics is equally hindered by the sources of error which I have pointed out. The end to which all our studies are directed as practical physicians, is the application of remedial agents to the cure of diseases. An unprejudiced thinker, to whom the subject was mentioned, would assert with confidence that gentlemen engaged in a pursuit requiring the use of certain agents to accomplish the desired results, would be most solicitous to inform themselves fully in respect to those agents. He would regard it as incredible that a considerable part of our profession are either indifferent or satisfied with vague notions, and that a still larger part fall into routine methods with a few agents which have to do duty for all possible conditions. This widespread inappreciation, indifference, or ignorance of the actions and uses of drugs is due partly to fashion, partly to the unpromising nature of the subject. Within a few years past, a therapeutical nihilism has been the position occupied by many of the most influential leaders in modern medical thought. This movement is a result, in part, of the overshadowing importance of

physiological and pathological studies. The founding of great laboratories, and the brilliancy of discovery in these departments, have attracted universal attention to those studies which have become the fashion. We see on every side the efforts put forth to give this direction to medical study and teaching. The desire of the time seems to be to make students, histologists, pathologists and microscopists, rather than sound practitioners, full of the humble but necessary knowledge of the practical departments of our art and science. I hold this to be a perversion of the duty of a medical school. Its first and highest duty is to instruct students, not to pursue minute researches, but to become thoroughly accomplished physicians and surgeons. No fact is more evident than that the highest order of physicians and surgeons are not men remarkable for their knowledge of microscopy, of experimental physiology, and the other branches of theoretical medical science, and, conversely, that the microscopists and pure physiologists are not remarkable as physicians, and, indeed, cannot be. The attempt to pervert the proper purpose of medical schools, and to give a merely science aspect to medical teaching, is a fashion of the time, which, if it gain more adherents, is likely to do serious mischief to the cause of medical education. For young men, allured by the glitter of scientific work, will neglect the important and really more difficult attainments of true professional studies.

It is a mere pseudo-science which is misleading so many that it has become commonplace to know something about drugs, and to prescribe them; the new school of pathologists and physiologists look upon the whole business of medicine-giving as unscientific, and therefore unworthy the attention of the higher order of medical thinkers. It is a very fascinating doctrine, that to be ignorant of drugs is to be regarded as superior to the commonplace—as being in the higher walks of medical life—and hence many make haste to adopt it, relying for the hereafter on mint-water in the treatment of rheumatism, and similar nihilistic absurdities. The great question of the time is, does it pay? Applying this utilitarian method to the subject, I answer, it does not pay to be ignorant of therapeutics,

and I prove my position by some illustrative examples selected from those recently deceased, so as not to be accused of making invidious comparisons. The most successful physicians of Paris, Vienna, Berlin, London and Edinburgh have had, in our generation, were Trousseau, Oppolzer, Traube, Todd, Bayliss, all of whom were most careful students of therapeutics, and contributed to our knowledge of the subject, and were diligent prescribers of remedies. These great men were not only successful teachers and clinicians, but had great local reputations as practitioners, and each had a large *clientele*. I beg you not, therefore, be misled by the depreciation of therapeutics by presumed medical scientists, who are not sufficiently scientific to feel their position assured, but must manifest superiority by speaking contemptuously of the so-called practical branches. *Sum* is sometimes taken for *habeo*, is an eccentric rule of Latin grammar, which is very applicable to the affairs of modern life, and may have been, and doubtless is strongly felt by the old Romans. To have is to be. Applying this rule to the utilitarian side of the question, you may be well assured that *to have* a competent knowledge of therapeutics is *to be* a successful practitioner.

Many who have started out on a medical career with a competent knowledge of therapeutics, have been disheartened by failure to obtain the expected results. Failures of this kind arise from two causes: First, from an incorrect appreciation of what nature and art respectively accomplish; and second, from an inability to make a correct therapeutical diagnosis. The rage in our time is to make an accurate diagnosis of disease, and it is an enthusiasm to be encouraged, but there ought to be a corresponding desire to make an accurate therapeutical diagnosis, that is, to ascertain the remedy adapted to the nature and character of the disease and the condition of the patient.

Into this problem many complex questions enter, and he who can solve it correctly who has an intimate acquaintance with the phenomena of disease, and with the whole range of rational and scientific therapeutics.

What art, what nature can accomplish, is a wide subject which I must merely mention. It is a singular fact that

few young physicians, comparatively, recognize the limits of remedial power. The result is that they may begin with a blind, unquestioning faith, but they end with an unreasoning skepticism.

Having now dwelt on the method and spirit in which therapeutics should be studied, as much as my time will allow, I must next say something of the manner in which it should be taught.

Confronted at the outset of his career with the subjects of *materia medica*, a student may well stand appalled. A subject which embraces the mineralogy, the chemistry, the botany, the pharmacology of several hundred articles belonging to the three great kingdoms of nature, would seem to require the undivided attention of a life given to the task. The student of medicine cannot become sufficiently well informed in these sciences to utilize them in the study of the *materia medica*, and at the same time devote sufficient attention to his strictly medical studies. The result is, he abandons an undertaking which seems to him hopeless, cuts the subject of *materia medica*, and contents himself with the fewest possible facts in therapeutics. He enters into practice with crude notions, and is given to a boundless credulity respecting the curative powers of drugs, or he cultivates a skeptical dilettanteism, or becomes a skeptic, affecting a patronizing forbearance for the weakness of those who have faith in remedies. The condition to which practitioners are now reduced in Paris is gravely stated in a letter which appears in a recent issue of the *Lancet*, so gravely that it can hardly be regarded as satirical: "No wonder therapeutic skepticism is now the rule with prescribers. Thanks to the enterprise of wholesale druggists, a host of *elegant* preparations are always at hand, which relieve the scientific *clinicien* from the ridiculous absurdity of writing a useless formula. Now that diseases are allowed to run their normal course under the watchful eye of the medical naturalist, the exhibition of an inert, but *elegant* granule, must be considered a vast improvement upon the active interference of our physicking forefathers."

No wonder that at a recent meeting (last month) of the Paris Academy of Medicine, there were loud demands for

reform. No wonder that Dr. Andrew Clark, in that recent iconoclastic address from which I have just quoted, cries out in therapeutics, "the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition." He attributes this unhappy state of things to several causes, but the first is, that *materia medica*, not therapeutics, is taught in the schools, and that there is "no physician of experience and authority who teaches the subject of therapeutics."

Where must the reformation begin? Obviously, the reformation is demanded in the direction which I have indicated, and which Dr. Clark so vehemently emphasizes.

We must begin by stripping the *materia medica* of its useless knowledge. We must relegate to the botanist, to the chemist, to the pharmacist, the subject-matters belonging to them, and retain those things having connection with the study and work of the physician. I can best illustrate this by an example selected from the vegetable kingdom; let it be *nux vomica*. We have first the names—botanical and chemical. Then follows the source and botanical description, which is Sanscrit to the average student, and knowledge without any use to the practitioner as such. Next comes the pharmaceutical preparations, and a description of the mode of preparing the tinctures and the extracts, and an elaborate account of the separation of the alkaloids—a complexus of chemical and pharmaceutical knowledge of great utility, indispensable, indeed, to the pharmacist, but useless to the physician, who is not engaged in the business of a manufacturing chemist, and who cannot acquire this knowledge unless at the expense of his proper professional education. The best students who make the attempt to master the details of *materia medica*, acquire but a vague notion of it, and drop the study as soon as possible, except the few who expect to combine the business of pharmacy with the practice of medicine, a union which always results unhappily, and is not to be approved.

Dr. Clark complains in his energetic way that our works in this department consist of *materia medica* teaching largely of therapeutics, whereas they ought to be devoted to therapeutics only. This is an extreme view to which I must decidedly express my

dissent. There is certain knowledge of pharmacy and chemistry which is necessary to accurate prescribing, and which must be taught, if we would use our therapeutical knowledge intelligently. We must know the names of the drugs, the forms and preparations in which they are compounded, the active constituents, the doses, the antidotes, chemical and physiological, but especially must we have full and accurate information in regard of the effects of the remedies and their uses in the treatment of diseases. All of this knowledge is immediately applicable to the requirements of the physician, and no part of it can be omitted without injury. I hold that the action and uses of remedies is the point on which the greatest stress should be laid, and no information, empirical or physiological, should be neglected. Let the student have the minutest information from all possible sources of the physiological powers and capabilities of a drug, its behavior as influenced by idiosyncrasy and dose, its applications in the treatment of disease, the fallacies which affect a proper estimate of its powers, the special conditions in which it is useful, why it should be preferred to another remedy of the same class, and, in fact, any information in regard to it which may facilitate the physician's use of his armamentarium. The artisan is taught the name of the tool, the range of its uses, the mode of handling it under special circumstances; but he is not expected to acquire the mineralogy of iron and the chemistry of steel, subjects concerned with its original construction.

The information which a teacher must convey to a class is derived from two sources: from a study of the authorities who have contributed to the subject; from his personal experience and reflections. The literature from which he gleanes is a wide field, and contains a multitude of workers, who differ in capacity, in requirements, in honesty. The instructor may pursue two methods in imparting his information; he may present in order, chronologically or by subjects, a synopsis of the contribution of each individual worker; he may subject the whole to a careful analysis, weigh the merits and truthfulness of individuals, and present the results in the plainest language. The former plan confuses the student with a multitude of names

and opinions that vary, and are often contradictory ; the latter gives him some salient points on which he may lay hold. I maintain that the latter plan is the true one, that it is the duty of the instructor to analyze the complexus of facts and opinions to guide the intelligence of the student through a maze to the right conclusions. Those who wish to engage in investigation on their own account are either advanced students or graduates, who possess the knowledge necessary to find their way through the labyrinth.

I hold, further, that the instruction should be, as far as possible, objective or demonstrative. The lecturer may content himself with stating that drugs will produce certain results, that strychnia will cause tetanic spasm, and that conia will paralyze, and he may illustrate the action of strychnia by an exposition of some famous medico-legal case, as the poisoning of Cook by Palmer, and the action of conia by recounting from the *Phædro* of Plato the death of Socrates ; or he may at the moment demonstrate the effects of the drug by an experiment which makes the fact memorable in the student's mental experiences. The chemist who merely tells his students that water is composed of oxygen and hydrogen, and does not demonstrate it by experiment, will hardly have done his duty. The experiment vivifies the bald fact, and the impression made is permanent. But how demonstrate your therapeutical facts? This brings me face to face with the great vivisection question. Though an advocate for rightly conducted vivisections, I protest against cruelty to animals, who are God's creatures. I protest against those barbaric sports in which more animals suffer yearly, hunted to death, than have in all time been under the knife of the vivisector. More than all, I protest against the inhumanity to man—the outcome of an unreflecting scientific mentality—which prevents those scientific investigations having for their end incalculable benefits to man. Some of our most important remedies and physiological knowledge of the highest importance have been, and only could have been, obtained by experiments on animals. If animals are sacrificed for the support of men's bodies, why should they not contribute to the improvement of men's minds? Your sentiment

philosopher does not reflect on the humanity of the butcher, except for the toughness of his matutinal steak. Not to occupy further time with well-known arguments in favor of vivisection, I hold that the actions of drugs should be illustrated as far as practicable by experiments on animals, but the experiments must be decorous, not revolting, not cruel, and made strictly to advance or to impart knowledge for the benefit of our fellow-man. In these experiments animals have small occasion to suffer, for the medicament or the anæsthetic so far obtund the sensibility of the centers of conscious impressions that pain is not felt.

Why torture dumb brutes by experiments, which after all cannot be utilized in the treatment of men's diseases; for has it not been shown that the actions on men and animals differ, that rabbits eat belladonna with impunity, and pigeons cannot be affected by opium? I might explain to you how idiosyncrasies exist in men and animals alike, and are usually more apparent than real; but let me answer your objections by a quotation from the most competent authority of modern times—Claude Bernard. He declares in that remarkable work—"Introduction to Experimental Medicine" (p. 218)—that "experiments on animals with deleterious and noxious substances are very useful, and perfectly conclusive for the hygiene and toxicology of man. The researches on medicaments or poisons are equally applicable to man from the therapeutical point of view, for the effects of these substances are the same in animals as in man, except the difference in degree." This opinion, based on the largest experience, and after a career of brilliant discovery, might be illustrated and enforced, if I had the time, by the examples of benefits to the race obtained in this way.

The crusade against vivisection in England, which has attained extraordinary volume and force within a few years past, is an outgrowth of dog-worship, which has now become a form of religion in the upper classes of society. With hair perfumed, powdered and curled, his canine worship sits at table with his mistress, rides in the park in the afternoon, sleeps on downy pillows at night; he has his maid to anticipate his wants, besides the undivided attention of his mistress, and when ill,

he is waited upon by a celebrated physician. He makes return to society for the protection and benefits he receives; he pays no taxes; he merely barks and growls in return for the love of his mistress, and is altogether an ungrateful dog, but he has driven physiological research out of England, and the gentlemen who were engaged in an important series of investigations on the biliary secretion, were compelled by him to go over to France. An epidemic of hydrophobia and the loss of several titled ladies will be necessary to prevent the apotheosis of the dog, and to put vivisection in its proper position, for a cure of hydrophobia can only be arrived at by experiments on this at present distinguished member of society.

A Case of Double Uterus and Superfœtation.

Dr. Sotschawar, of Moscow, reports the case of a woman aged twenty-six, to whom he was called on account of hemorrhage. Upon examination, he found two vaginæ, each leading to a distinct uterus. The hemorrhage proceeded from both uteri, and was very considerable. After some manipulation, an embryo of about one month was extracted from the left uterus, and three days later a fœtus of three months from the right uterus. The observer asserts that this is the third case of this kind known to science. It may be remembered that Dr. Fordyce Barker, of this city, has had one such case in his experience.—*The Medical Record*.

Puncture of the Synovial Capsule of the Knee-Joint and Injection of Tincture of Iodine.

Translated from German Medical Journal.

Dr. Orlow has performed this questionable operation in his clinic ten times; eight times on account of a long continuing exudation of a serous fluid, and twice on account of pus in the knee-joint. In all these cases, no unfavorable symptoms followed the treatment, and the patients were dismissed directly after the injection, and received no further treatment.

Of these patients, three were male and seven female; among them were an eight-year-old girl and a seven-year-old boy.

The right knee was punctured six times, and the left one four times. For the puncture and for allowing the escape of the pus, a trocar, about twice as large as an exploring needle, was used in all the cases. The puncture was always made on the outer side of the joint, and above or below the patella, according to the extent of the synovial capsule. Anæsthetics were not used. In two cases there existed severe local inflammation, diffused redness, and the swellings were very painful. The greatest circumference of a tumor was forty-three, and the smallest, thirty-five centimeters. The greatest quantity of fluid evacuated was one hundred and twenty, and the smallest fifteen grams. The fluid injected consisted of a mixture of three and seventy-five one-hundredths grams of tincture of iodine, and eleven and twenty-five one-hundredths grams of distilled water; a part of this flowed out after two or three minutes. The pain from the operation was slight, and soon passed away, so that the patients were able to go to their homes. The inflammatory symptoms soon disappeared, and after eight months there has been no return of the trouble. The after treatment consisted solely in covering the puncture with a piece of sticking-plaster. The following cases are given as the ones more especially worthy of remark:

(a) N. K., seven years old, presented himself on the 22d of October, with all the symptoms of a serous collection in the right knee-joint. It was greatly swollen, and the lower third of the thigh was erysipelatous; movement of the limb was painful, and walking was impossible. The puncture allowed the escape of thirty grams of a synovial-like fluid. The injection of the tincture of iodine (one to three) caused pain. November 6, the tumor and redness have disappeared, and the knee can be extended horizontally. Notwithstanding some adhesions which prevent free movements of the limb, the patient can walk with the aid of a cane.

(b) W. G. P., forty-five years old, with infiltration of the right knee-joint of one year's standing. The synovial capsule is extensive, and measures forty centimeters in its greatest circumference. Movement of the knee gives pain. On puncture, thirty grams of a bloody fluid escaped. The injection

of the tincture of iodine caused considerable pain: Recovery was complete.

(c) J. N., forty-five years of age, with pyarthrosis of the right knee-joint; the skin was red and swollen, and the greatest circumference of the swelling was forty-three centimeters. The disease had lasted for one year. After the withdrawal of ninety grams of a purulent fluid and injection of iodine tincture, complete recovery followed.

(d) O. W., eight years old, and of feeble constitution. Pyarthrosis of the left knee of two months standing. After the removal of about twenty-seven grams of pure pus, and an injection of tincture of iodine, recovery followed within two weeks.—*Physician and Surgeon.*

Coto Bark in the Diarrhea of Phthisis.

It is now more than two years ago that my friend Dr. Frank, of Cannes, suggested to me the use of coto bark in the treatment of the graver forms of diarrhea which occur in the course of phthisis. Whatever difference of opinion may exist as to the desirability of attempting to arrest the less severe forms of diarrhea, which we encounter in early phthisis, no one can doubt the value of a remedy which will help us to control the grave and exhausting attacks of diarrhea which occur in its more advanced stages. I am persuaded that we possess such a remedy in coto bark, and I express this opinion with all the more confidence because it has not been arrived at hastily, but represents the observation and experience of more than two years.

During this period, I have given it in many cases of apparently uncontrollable diarrhea, that is to say, cases of diarrhea which were not controlled by the ordinary remedies, such, for example, as opium, bismuth, tannin, ipecacuanha, etc., and I have found it almost invariably have the effect of arresting the intestinal flux, and of relieving intestinal pain and irritation in a very short time. I say "almost" invariably, for when I first gave it I found no such good result, and on inquiry

I found that one of my colleagues had employed it also without effect. This led me to consider the mode of its administration. I found my colleague had given it mixed with other substances and made into pills, and I had given it, in the first cases in which I tried it, blended with the *Mistura Cretæ* of the *Pharmacopœia*. It is deserving of notice that when given in both these forms it appeared inert; and one might have been induced to hastily discard it as a drug without remedial value. This is probably the fate of many valuable medicines which appear to fail; not from want of virtue in themselves, but from want of patience and attention in their mode of administration.

Finding that the fluid extract contained a resinous element which was precipitated in tough masses when the extract was carelessly mixed with water, I had the following mixture carefully prepared:

Fluid extract of coto, 60 minims.

Compound tincture of cardamons, 60 minims.

Mix these together and triturate them slowly with mucilage of acacia, 3 drams, and simple syrup, 2 drams.

Finally, add water to 6 ounces.

A tablespoonful of this mixture is a dose. In this form, it is an opaque mixture, with a not unpleasantly warm and aromatic taste. I have usually found two or three doses of this mixture arrest or check the severest forms of phthisical diarrhea.

The bark is imported from Bolivia in South America, and the preparation I have used is the fluid extract prepared by Ferris & Co., of Bristol. The dose is from 5 to 8 minims. An alkaloid *cotoïn* has been prepared from the bark, and is reported to have the same valuable properties as the extract of the bark itself, but of that I have no personal knowledge.

I may add that I suggested its use in a case of exhaustive and uncontrollable diarrhea in one of the graver forms of exophthalmic goiter, which I saw in consultation with my friend Channing Pearse, of Brixton; and he has since informed me that it not only arrested the diarrhea, but also appeared to have a remarkable influence in allaying the distressing

nervous phenomena associated with the case. I am quite sure that coto bark is a valuable remedy which ought rapidly to come into general use.—*J. Burney Yeo, M. D., in the Practitioner.*

An Interesting Obstetric Case—The Liver Presenting.

BY A. L. SWEET, M. D.

I was called, October 12, to see Mrs. H., a large, masculine Irishwoman, who was supposed to be in labor. The nurse in attendance assured me that the waters had broken some time before. A short time after entering the house, I made an examination, and, to my surprise, found a soft, spongy mass occupying the vagina. It was about four inches long, irregular in shape, with an average diameter of, perhaps, one and a half inches, and so fragile that I could easily tear it with my fingers. I at first concluded that I had a case of placenta pravia, and that a part of the placenta had been extruded from the os, although the feel was not exactly like that of placental tissue, and there was no hemorrhage. I was still further mystified when, upon passing my finger higher up, I could find no place where the supposed placenta was attached to the uterus. I could sweep my finger clean around it, and, in making traction on it, it seemed to be firmly identified with the uterus. I also found that the breech was presenting. Being very much in the fog as to the nature of the case, I predicted a still birth, and administered some ergot (as the pains had nearly died out), and awaited the course of events. In due time, the child was born, and, after its birth, I found that what I had supposed to be the placenta was the *liver of the child*. The fetus was a small one, justifying the opinion of the mother that she was in labor before her time—was dead, and was a monstrosity. The lower part of the pelvis was undeveloped, being covered only with a thin membrane, and, upon the first contractions of the uterus, had allowed the contents of the abdominal cavity to escape; so, upon the birth of the child, the liver and intestines were all out of the body. The head and upper extremities were perfect, but the legs were joined to the left side of the trunk at a right angle.

Upon the right thigh, about three inches below the trochanter major, was an excrescence about half an inch in length, which I suppose to have been a rudimentary penis, as there were no other signs of sex to be seen anywhere else. There was an anus at the usual place, and a short portion of a rectum. The woman is the mother of three healthy children.—*Medical Record*.

For Chronic Ague.

Iodine and iodide potash are efficient medicines for this prevalent complaint. Say iodine gr. x, iodide potash gr. xxx, aqua pura ʒj. Mix. Dose, five to fifteen drops in tablespoonful of water every three hours, commencing twelve or eighteen hours before the time of paroxysm. After the disease is so far broken up that no more chills are experienced, the remedy should be continued three times a day for two or three weeks. This is about as *cheap* a remedy for this disease as I am acquainted with, and, from some experience with it and notices in journals, I am led to believe that it will be found very effectual in a large number of cases. I succeeded in one case of six months' standing with this prescription, in arresting the paroxysms and curing the complaint, after a month's trial unsuccessfully with quinine and arsenic. These were used perseveringly until they even lost the power of arresting the paroxysms in any ordinary doses.—*The American Medical Journal*.

Resuscitation of Drowned Persons.

A new method for the resuscitation of the drowned is described by Dr. Thomas E. Satterthwaite. It is claimed to be simpler than any of the already recognized methods; it needs but one operator; but little muscular force is called for, and the person is subjected to no rough usage. The directions are as follows: First, try and get something warm and dry to exchange for the wet clothing. Second, try and clear the air-passages of water by slightly elevating the body, while the mouth is wedged open and the tongue depressed. In half a minute or less the water will be driven out. Third, turn

the person over on the back, with the head still a little lower than the body, keeping the mouth wedged open with a bit of wood, and the tongue depressed with the finger of one hand. Then, sitting beside the person, make upward pressure with the other hand upon the bowels. Press slowly at first, then remove the hand that the air may enter the lungs. Repeat this three or four times a minute in the beginning, then increase to fifteen or eighteen times a minute.

If there is an assistant, the arms may be grasped and Sylvester's plan used in addition. Ammonia or smelling-salts may occasionally be applied to the nostrils to stimulate the nerve-centers.—*The Medical Record*.

An Alleged Cure for Rattlesnake Bite.

Myron G. Collins, of Tennessee, claims to have discovered a cure for rattlesnake bites. Drs. Eve and Shacklett, of Nashville, according to the *American*, made a test of the medicine. Collins let a rattlesnake bite him on the wrist, and at once applied to the wound and took inwardly a decoction of mosses from oak and hickory trees. He suffered from nausea, and his pulse and temperature were excited, but within an hour he had completely recovered. The bite of the same reptile speedily killed a dog.—*Louisville Medical News*.

Paracentesis Pericardii a Justifiable Operation.

The above operation, which, after trial, has been pretty generally abandoned in New York hospitals, is urgently recommended by Dr. John B. Roberts, of Philadelphia. The operation was proposed two hundred years ago, but only seven recorded cases of the operation could be found in America. Dr. Roberts, however, collected elsewhere in all forty-nine cases, of which twenty-three recovered.

The cases requiring paracentesis especially are those where a sudden effusion occurs in acute articular rheumatism. In Bright's disease, pleuro-pneumonia and purulent pericarditis, not so good results can be expected. The operation should be

done with an aspirator; the best point for the needle or trocar being the fifth intercostal space, one and a half inches from the middle line (not the left edge) of the sternum. If the fluid re-accumulates the tapping should be repeated, and if it becomes purulent a drainage-tube may be left in the wound.—

The Medical Record.

EDITORIALS.

HOME AGAIN.

After an absence of nearly four months, I find myself back at the old duties incident to a busy professional life. The MEDICAL TIMES apartments, with the big files of exchanges, the huge baskets of half-digested communications, the stock of new books "For review," the bunch of consultation letters, etc., all look wonderfully familiar and suggestive of *work*. The lecture halls at Bennett College, too, seem familiar, except the audience of students is much larger than during former winters, and their eyes are brighter and brains clearer, and all desiring front seats.

The freshly frescoed college walls, the clean stairs, floors and halls, all seem to say, "Welcome back to duty." With rested nerves, a good appetite and a hearty, old-fashioned "Spanish greeting" for all professional friends, I am resolved to do more and better work during the coming year than I was able to accomplish during the past one. These pages must be "revised and enlarged," and thus kept in the van of all *liberal* medical journals.

This brief sketch would be incomplete were I to omit a word of well-merited praise due to Prof. Harrison, who so ably conducted the MEDICAL TIMES and the professional duties of this office, during my travels and recreation. Prof. H. is one of God's true noblemen. Although young in the profession, he ranks among the foremost as a clear, concise, scientific writer and lecturer, and has reflected honor upon every professional position in which he has been placed. May his shadow never grow less!

D.

BENNETT COLLEGE.

The friends of this College will be gratified to learn of the continued prosperity of this sterling institution. The class, this session, is larger than any previous one in the history of the College—a class of practical students, who have come to attain a practical knowledge of the pure principles of Eclectic Medicine and Surgery. Several new students have procured “scholarships,” and intend to strictly follow the *curriculum* prescribed by the Faculty for three or four years, or until fully qualified to assume the great responsibility of treating afflicted humanity. The College Alumni may rest assured that “old Bennett” will take no step backward. Six-months’ sessions and thorough teaching are fixed facts here. Our increased length of lecture term has been attended with gratifying results to students and teachers. The Faculty now have an opportunity to properly classify their work, and thus present the subjects embraced in the various departments in a thorough and practical manner. This enables students to systematize their work, and grander and more thorough results are actually attained during one of these thorough sessions than was possible under the old plan of the *two hurried terms* during the same winter.

ILLINOIS STATE BOARD OF HEALTH.

At the regular meeting of the “State Board,” held at the State House, Springfield, October 9, the case of the Medical Institute of Cincinnati was fully considered, and the result was another refusal to recognize the “Institute” as a school of medicine in “good standing.”

Following is a synopsis of the proceedings :

The minutes of the Chicago and Cairo meetings were approved.

The greater portion of the session was devoted to considering the case of the Eclectic Medical Institute of Cincinnati, in which a large mass of papers were submitted.

In this case the Board, at its June meeting, declined for the present to grant licenses to four or five graduates of the

Institute, until the institution complied with the regulations of the Board by allowing at least six months to intervene between its winter and spring courses of lectures.

Considerable correspondence was had between the Faculty and the Board, and voluminous opinions were submitted by the attorneys of the institution, claiming that its charter prescribed the length and number of sessions, etc., and that the Institute was governed solely by the laws of Ohio. The Faculty offered to enforce the rules of the Board upon students from Illinois, and threatened that they would sue the members of the Board for damages if they persisted in refusing to recognize the institution.

The following opinion from the Attorney General, prepared at the request of the Board, was submitted :

THE ATTORNEY GENERAL'S OPINION.

Dr. John H. Rauch, Secretary State Board of Health :

SIR : I have examined the question submitted to me by your Board as to its powers and duty in respect to the determination of the question as to whether a "legally chartered medical institution" is "in good standing," within the meaning of those terms as used in Section 3, of the "Act to regulate the practice of medicine in the State of Illinois," in force July 1, 1877, so as to entitle graduates possessing diplomas or licenses from such medical institutions to certificates from your Board authorizing them to practice medicine in this State.

Whether or not a medical institution is "in good standing within the meaning of this act, is a question of fact to be determined by your Board, at least in the first instance.

The words "in good standing" should be understood in that sense which would ordinarily be ascribed to them by those familiar with institutions where the science of medicine is taught. Any medical institution whose course of study prior to graduation is equal to that generally regarded by the medical profession as sufficient to entitle a student to graduate and receive a diploma as Doctor of Medicine should be treated as "in good standing." The most rigid and thorough course of study is not contemplated by these words, but that average

standard which obtains among the medical schools of this country would seem to meet the requirements of the statute.

If a medical college or institution makes its course of study so brief as to fall materially below the average standard, I have no doubt that your Board has the power, and that it is your duty, to refuse to issue certificates to its graduates authorizing them to practice medicine in this State.

As to what length of time is generally considered requisite to be devoted to a course of medical study to entitle a student to a diploma, is a question of fact to be determined by your Board from the best information at your command.

I am very respectfully,

J. K. EDSALL, *Attorney General.*

After fully and carefully considering the case for nearly the entire day, the following was offered by Dr. Bateman and unanimously adopted:

"Resolved, That, after a careful consideration of the various papers submitted to the Board in this case, while earnestly disclaiming any thought of injustice toward that institution, or the school of medicine of which it is the distinguished representative, or any other institution or school of medicine, but actuated solely by the desire to elevate the character of the medical profession of the State of Illinois, in accordance with the true intent and spirit of the act to regulate the practice of medicine, the execution of which is devolved upon this Board, we see no present reason to reconsider or change the action taken with reference to said institution at the June meeting of this Board."

Judging from these proceedings, the members of the Board fully intend to enforce the State law to "regulate the practice of medicine" in the State.

The main offense committed by the Institute, which has brought her into disfavor with the State Board, seems to be the fact that the manager persists in holding *two* graduating sessions in each year, a violation of the rule adopted by the State Board more than a year ago defining what should constitute "good standing" as applied to all schools of medicine. At the time this standard was adopted, there were but *seven*

colleges in the United States that held two graduating sessions yearly; and, if I am not greatly mistaken, these *seven* fully agreed to the proposition, viz., to hold but one graduating session annually, and five of the seven colleges have faithfully kept the covenant, while the other two have not. The members of the State Board, doubtless, aim to conduct their affairs in a manner to promote the best interests of the entire medical profession of the State, and, as long as their rules do not conflict with this principle, the MEDICAL TIMES will indorse the action of the Board in adhering firmly to the almost universally accepted construction as to what constitutes "good standing" as applied to medical institutions.

ALUMNI ASSOCIATION.

We do not want the graduate of Bennett to forget the movement that is being made for an Alumni meeting in Chicago next spring. Some time ago, we requested that the name and present post-office address of each candidate be sent to the office of the MEDICAL TIMES. At this writing, only a few cards have been received. Do not delay; send in your names at once. Circulars will soon be issued, and the Committee desires to place one in the hands of each graduate. We must organize for mutual good and protection, and to advance the interests of our *alma mater* and the cause of Eclecticism. We want a rousing meeting next year, on the day before the "*National*" convenes. A constitution is in preparation. Some of the articles proposed are as follows (Suggestions from any graduate will be gratefully received and carefully considered. We invite correspondence):

ARTICLE I. This society shall be known as the Alumni Association of Bennett Medical College.

ARTICLE II. The object of the Association shall be to advance the interests and elevate the standing of Bennett Medical College; to assemble at stated intervals for mutual counsel and social intercourse, and to secure, by organized effort, all the rights and privileges that belong to us in common with other schools of medicine.

ARTICLE III. The membership shall consist of graduates of Bennett Medical College in good standing in the profession, who shall subscribe to these articles and pay the annual dues. The Faculty of the College shall be honorary members of the Association.

ARTICLE IV. The officers shall be elected annually and serve one year, or until their successors are elected, and shall consist of a President, two Vice Presidents and a Secretary and Treasurer, who shall perform the duties usually assigned to such officers; also, an Executive Committee of three members, who shall have charge and direction of the affairs of the Association, and arrange the programme of meetings.

ARTICLE V. The funds of the Association shall consist of the annual dues of \$1 from each member.

ARTICLE VI. These Articles may be increased, altered or amended at any regular meeting of the Association by a two-thirds vote of the members present.

THE NATIONAL ECLECTIC MEDICAL ASSOCIATION.

Extract from call for National Eclectic Medical Association, June, 1880 :

“ I trust that every member of this Association to whom a Report, Address or Essay has been assigned, will endeavor zealously to perform his duty. The subjects which have been selected take a wide range, but they all come within the province of the physician. The thorough examination of them will be of immense value to the writers themselves, as well as to those who hear or read the papers. An earnest spirit of investigation, with breadth and clearness of view, cannot fail to secure enlarged scientific knowledge, which will benefit ourselves and the general community.

“ While we devote a part of the time to the common medical topics, I hope and desire that special attention will be given to PREVENTIVE MEDICINE—Mental and Physical Hygiene in its broadest sense. The venerable Prof. Gross, in an

address to the Medical Society of Kentucky, says: 'The great question of the day is, not this operation or that, not ovariectomy, lithotomy, or a hip-joint operation, but *Preventive Medicine*—the Hygiene of our persons, our dwellings, our streets—in a word, our surroundings, whatever and wherever they may be, whether in city, town, hamlet or country. . . .

. . . The people must be roused to a deep and more earnest sense of the people's welfare, and suitable measures adopted for their protection, as well as for the *better development of their physical, moral and intellectual powers*. This is the great problem of the day, the question which you, as representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow-citizens—the question which, above and beyond all others, should engage your most serious thought and elicit your most earnest co-operation.'

"The study of Sanitary Medicine for twenty-five years, and observations in private practice and in hospitals and asylums, have profoundly impressed me with the importance of this subject. Although not desiring that other questions shall be superseded, I would earnestly urge ALL members of this Association to investigate thoroughly the laws of health and disease of mind and body, and to devote themselves to the promoting of mental and bodily Hygiene. The reciprocal influence of parts seemingly unconnected is acknowledged by medical and metaphysical inquirers. Disraeli says: 'The tenant and the house are inseparable; so that in striking any part of the building you inevitably reach the dweller.'

"Careful attention is desired for ALL THE TOPICS which have been selected for addresses and essays. They all have a bearing on the laws of mental and bodily Hygiene. Heredity in its Mental and Physical Aspects, Inebriety, Opiomania, Insanity, Nervous Disorders, Maternal Impressions, Brain-Culture in relation to the Schoolroom, School-Hygiene, Physiology in Education, Reciprocal Action of the Mind and Body, the Law of Fatigue, the Care and Education of Children, Inebriety and Crime, Sexual Hygiene, Fashion and its Penalties, Syphilis and Marriage, How to Eradicate Inherited

Taints, Zymotic Diseases, Public Hygiene, Malarial Poisoning, Sewer-Gas Poisoning, Defective Drainage, Impure Water and Impure Milk as Causes of Disease, Building Ground in its Relations to Health, Physiological Instruction of Patients, and other like questions are intimately involved in Preventive Medicine. Ignorance on these subjects is causing a vast amount of sickness, suffering and mortality. The *ignorance* as well as the iniquities of the fathers is visited upon the children; they, in their turn, confer an inheritance of woe in the form of minds and bodies disordered. It is our duty to explore and understand the laws of health and disease; the public have the right to require this, and if we are true to our cause, to God and humanity, we will endeavor to perform it faithfully.

MILBREY GREEN, M. D., *President.*"

PHYSICIANS' VACATIONS.

Most physicians believe that, at certain seasons of the year, they require a vacation, a rest from weary labor; and, during the past year, our exchanges have had much to say about the great necessity for vacations for physicians. And, speaking from actual experience, vacations are quite desirable luxuries. But Dr. and Mrs. Ducat, of Highbury, England, have recently taken a genuine "breathing spell." After putting themselves in training by a system of preliminary walks, they traveled on foot through Switzerland and along the Rhine for three weeks. They saw, it would appear, almost everything, and all for *forty pounds*!

Their example is commended to the rest of the profession.

BOOK NOTICES.

DISEASES OF WOMEN. By LAWSON TAIT, F. R. C. S., Surgeon to the Birmingham Hospital for Women, etc. New York: William Wood & Co., 27 Great Jones Street. 1879. Reprinted from the English edition of 1877, and embraced in 192 pages.

The author declares that his aim in issuing this work in the presence of so many writings on this subject is to offer the

results of his own experience in as condensed a form as possible. This being his object, he has avoided many quotations of authority and references to other writings.

The work displays considerable originality, and on this account is a valuable addition to a medical library. As a systematic treatise, however, it is incomplete, many important topics being very sparingly noticed, and others of less importance accorded an undue amount of space. It views diseases from a surgical rather than a medical standpoint. The author condemns the use of caustic, and in the matter of treatment seems a safer guide than many cotemporary writers.

THE STUDENT'S GUIDE TO THE DISEASES OF WOMEN. By ALFRED LEWIS GALLABIN, M. A., M. D., F. R. C. P., Assistant Obstetric Physician and Joint Lecturer on Obstetric Medicine to Guy's Hospital; Examiner in Physiology and Obstetric Medicine to the University of Cambridge, etc. With sixty-three illustrations. Philadelphia: Lindsay & Blakiston. 1879. Price \$2; pp. 364, with a full index.

Condensed works on the diseases of women come to the Editor's book table so frequently of late, that he is disposed to wonder whether all physicians have a decided leaning toward this department of practice, or whether all womankind are diseased. We have two to notice this month. Dr. Gallabin's book is a commendable effort, and better fitted for the use of medical students and physicians pursuing a special course of study than many of the larger treatises. In a few words, and with great clearness, instructions are given for diagnosis and treatment, including operations. The illustrations are good, and most of them new.

A GUIDE TO SURGICAL DIAGNOSIS. By CHRISTOPHER HEATH, F. R. C. S., Holmes Professor of Clinical Surgery in University College London, and Surgeon to University College Hospital; Honorary Fellow of King's College, London. Philadelphia: Lindsay & Blakiston. 1879. Pp. 214.

Those who are familiar with "Heath's Operative Surgery," and especially his "Minor Surgery and Bandaging," will not doubt his ability to prepare a satisfactory treatise upon surgical diagnosis. The book opens with the subject of case-taking, in which the author gives a general plan of the proper manner of recording the history of a patient, the course of

the disease and the treatment. Then the various indications of disease are considered, commencing with those of the head and progressing to those of other parts of the body. Full marginal notes, a good index and table of contents, make the work exceedingly available.

STUDENT'S POCKET MEDICAL LEXICON. Giving the correct pronunciation and definition of all words and terms in general use in medicine and the collateral sciences, the pronunciation being plainly represented in the American Phonetic Alphabet. With an appendix containing a list of poisons and their antidotes, abbreviations used in prescriptions, and a metric scale of doses. By ELIAS LANGLEY, author, etc. Philadelphia: Lindsay & Blakiston.

Cleaveland's Medical Dictionary, so long popular with medical students, was in part compiled by Mr. Langley, the author of this work. The author aims to embody in this book the improvements and changes that have taken place in the last twenty-five years. He has succeeded admirably in the difficult task of condensing into a very small space most of the words and terms in general use in medicine and the collateral sciences. The definitions in general are clear and correct; and, by mastering the phonetic alphabet, a correct pronunciation can be acquired, even by those who have not had the benefit of a classical education—"a consummation devoutly to be wished."

WINTER AND ITS DANGERS. By HAMILTON OSGOOD, M. D., Editor¹ Staff of the *Boston Medical and Surgical Journal*. Philadelphia: Lindsay & Blakiston. 1879.

This is the sixth of the series of American Health Primers, and is a timely work written in a most pleasing style. Let practitioners introduce it to their patrons.

THE EYE-SIGHT, AND HOW TO CARE FOR IT. By GEORGE C. HARRIS, M. D., Surgeon to Wills' Eye Hospital, etc. Philadelphia: Lindsay & Blakiston. 1879.

The fourth of the above series, written by a practical eye surgeon, and well illustrated, gives much needed information to the laity.

The masses will be greatly benefited, and the cause of popular education much advanced, by the dissemination of such works.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[LI.]

CHRONIC HYDROCEPHALUS.

BY J. T. KENT, M. D., ST. LOUIS.

(Continued from November number, p. 377.)

It is from necropsy that we learn the most interesting facts to which I shall devote a considerable space in this paper, giving my own observation and condensed reports of interest from our present literature.

If the brain of a still-born child which has come to its death by congenital hydrops-cerebri be carefully examined, a variety of conditions will be observed which are very peculiar, and exceedingly interesting to the student of physiology and pathology.

Many portions may be found wanting, and in place of brain proper, the cranium may be distended with a thin pellucid fluid. Not uncommonly, the central cavities have been found blended into one, the cerebrum a complete bag, with its convolutions flattened and its sulci lost, fitting closely to the internal osseous surface, with the whole encephalic mass obliterated and in its place a thin membrane.

Again, the brain has been found collapsed, as it were, upon the floor of the cranial cavity, with the fluid entirely without the encephalon, and the whole cranial cavity filled with cerebro-spinal or serous fluid, with often no morbid appearance

that would enable us to account for this abnormal quantity of fluid. When undue pressure has been made by cerebro-spinal fluid in the downward direction in the course of the canal extending through the spinal cord during foetal development, caused by occlusion or congenital closure of the cerebro-spinal opening, a separation occurs, or the non-union of the arch of one or more bones of the spinal column, and a sacculated tumor appears from the non-union of the osseous centers, filled with cerebro-spinal fluid as the result, commonly known as *spina bifida*. Then the cause of *spina bifida* must readily appear to be a congenital occlusion of the cerebro-spinal opening or a superabundance of cerebro-spinal fluid.

The recorded facts concerning the morbid anatomy of cases which have survived this critical period and have died later in childhood, or have lived to the adult period and succumbed, are still more interesting. From these we shall see additional evidence of the two species of chronic hydrocephalus, each depending upon a great variety of causes. Serous fluid has been confined to the lateral and third ventricles by occlusion of the aqueduct of Sylvius, and the lateral ventricles found distended to wonderful proportions. The fluid has been confined to the third, fourth and lateral ventricles by closure of the cerebro-spinal opening in the floor of the fourth ventricle and the arachnoid space containing a limited amount of fluid, even, at times, a diminutive quantity.

The second form, or extro-cerebral hydrops, is that which is found without the ventricles and within the arachnoid space. The cerebral mass has been found at the floor of the cranial cavity, and, aside from the bleaching and pressure wrought upon it by the surrounding fluid, may be in a very normal condition. In these cases, after the inflammatory stage, development of the body has gone on remarkably natural, but nothing in comparison to the rapid growth of the head, which is generally much larger than in the internal or ventricular variety. The processes of nutrition are not so much interfered with, therefore emaciation is very uncommon, even when the head is of ponderous proportions. The case referred to in this article, in my opinion, belongs to this category.

Spasms, mal-assimilation and emaciation are very common in the ventricular variety, with continual diarrhoea, vomiting and finally coma. The two varieties have combined or co-existed, when the ventricular cavities and arachnoid were distended with fluid, and the general symptoms coalesced and multiplied.

In studying the causes of these unsatisfactory yet interesting conditions, we can but labor in profound obscurity, as the post-mortem, at the most, can only reveal results, and leaves the steps of progress clouded in mystery. We have observed in congenital dropsy of the brain that occlusion of the *viz* is a common cause of the ventricular variety, retaining the fluid within the various ventricles. But cases that have occurred when the child was six months or even as many years old, we are at a loss to conclude as to the cause, except it be to suppose the continuation from an acute inflammation to one of a chronic character. Such being the case, it must be of a kind peculiar to itself; a very low and passive order, not of sufficient gravity to extinguish the vitality of the meninges. Judging from the cases Hilton has reported, we can but conclude that these occlusions are inflammatory adhesions; at least I am quite willing to adopt the opinion that a peculiar form of inflammatory action is the common cause of closure of the inter-ventricular passages, and also that inflammation of the pia and arachnoid is the cause of the external variety of chronic hydrocephalus. The premonitory symptoms in prominent cases are conducive to this opinion, and as a reason that acute pia inflammations result fatally in so short a period, I would adduce the active treatment through which these little ones are conducted. I can but believe that where the proper supporting measures are adopted, and small amounts of medicine, and that small dosing of such a character as to do no harm, many of these cases will pass through the acute form, which constitutes only the prodromal stage of the real chronic hydrocephalus, and grow up.

Small doses of bromides constitute the type of drugs most generally indicated.

Additional interest may be lent by appending the history of an adult case from Hilton's *Rest and Pain*:

"Cadaveric decomposition was advanced, except within the brain, which presented, in this respect, a remarkable contrast to other parts of the body. The convolutions of the cerebrum were large, and their surfaces flattened by pressure from within. * * * * *

"The brain-structure was healthy, neither it nor the membranes containing any tubercular deposits. On carefully opening the lateral ventricles, they were found to contain at least four ounces of cerebro-spinal fluid.

"The ventricles were greatly enlarged, and all the receding and projecting angles of the boundaries and cornua were lost or subdued. The foramina of monro were rounded, and capable of admitting a large quill, not quite a third of an inch in diameter. The lining membrane of the ventricle and the choroid plexus were healthy. The septum lacidum and the fornix were softened, but the microscope showed no trace of inflammatory deposit or softening. The fourth ventricle was greatly dilated in all its directions, showing well its lateral cornua, which support the pneumo-gastric, auditory and other accompanying nerves. The cerebro-spinal opening between the under surface of the cerebellum and the upper surface of the medulla oblongata was completely closed by a tolerably dense membranous structure, which formed a kind of pouch projecting downward, and showed the direction of the fluid tension upon it to have been from above to below.

"This was clearly seen when looked at either from the ventricular aspect, or below, from the spinal aspect.

"The arachnoid in the neighborhood, at the base of the brain, was somewhat opaque and thicker than natural."

The subject of this necropsy, Mr. Hilton says, "died at the age of thirty-four. On the day of his death he had visited the Crystal Palace. He had been seized with vomiting in the morning, and again about two hours before he reached home. He walked from the Crystal Palace (a mile or so) and when he entered the house he staggered, and said he felt giddy and oppressed. * * * He died in a ve

short time, with stertorous breathing—remaining sensible, however, almost to the last moment.”

The brother of the patient writes the following as the history of the latter: “As a child, he was active and wiry, but very irascible in temper. As a man, he was very spare and delicate-looking. He had always some color in his cheeks, which he retained until within a year of his death. He had a fondness for intellectual pursuits; also, for turning light fancy work and gardening; and a great dislike to the excitement, and especially the noise, of London. Indeed, at the age of sixteen, he had a severe nervous illness, with great depression, brought on by application to business in the city. It ought, however, to be mentioned that his occupation was not at all intense, and nothing would have been thought of it by ordinary men.

“His food was always of the simplest kind; even tea, coffee and cocoa seemed to affect his head and derange his stomach, and he had an instinctive dislike to alcoholic stimulants of any kind. * * * Both winter and cold always affected him injuriously. * * * He seemed torpid and would drop into deep sleep after a meal, from which it was often difficult to rouse him at bedtime, when he seemed scarcely to know where he was. Excitement frequently brought on an impediment in his speech. For many years he was subject to headache, derangement of stomach and occasional dizziness.

“His pulse was extremely weak, irregular and slow, from fifty to sixty beats per minute. He was thought to be suffering from heart-disease. A peculiar, restless look of the eyes and uneasy stare, with dilated pupils, and a muddiness of the conjunctivæ, afforded a ready indication of any temporary derangement of his health. For the last year of his life, he was gradually losing flesh; he became more feeble, too, and acquired a slight stoop in his gait.”

The above is quite sufficient to convince any thinking individual of the disturbance wrought by the confinement of the cerebro-spinal fluid within the brain, and on this account he could not endure any determination of blood to the head. With the opening unoccluded this would not have been a case

of hydrocephalus. As I desire to confine the signification to mean that quantity of fluid which, in addition to the free flow of blood to the brain, may produce troublesome symptoms, and the above is a strong case in point, as bearing on this position of my subject.

A lengthy description of the various forms and symptoms and conditions of this so-called disease, only leads me to the point where I shall advise for these cases little or no medical treatment. They are better off where the "let-alone" plan is adopted. It is better to know what not to do than to use remedies indiscriminately, as is too often done.

Tapping has been resorted to, but never with success. Where tapping may be considered necessary the case is a hopeless one, and had better be left to nature.

Bandaging has never been of any service, and has been the means of some injury. It has caused convulsions and death. But where the little patients are not bothered by the doctor's physics, they live and enjoy life for a number of years, and finally die, at ages from one to six years, and occasionally at the middle period of life, with no great amount of suffering. They are sometimes monstrous to look upon; are cumbersome and seldom ornamental; yet their parents do not desire to part with them, and they deal tenderly with them as their unfortunate offspring.

The only benefit claimed in this paper from any manner of treatment is by arresting the progress of the disease in the acute or prodromal period, and thereby prolonging life, and this only in occasional cases. Such a result has been obtained by the use of bromide potassium and ammonium, in discriminate administration. The cases benefited are always of the inflammatory type. Indeed, we always rely on bromide potassium to allay all reflex phenomena and peripheral disturbances to control excitability, and ammonium when the stimulating influence is desired. Purgatives are not simply useless but harmful in all cases. If it were possible to overcome the tendency to accumulation, the gradual withdrawing of the fluid might found a hope of success.

On page 373, third paragraph, third line, should read "iter e tertio ad quantum ventriculorum."

[LII.]

DISEASES OF THE NASAL CAVITY—GALVANO-CAUTERY.

BY PROF. EDGAR READING.

Having availed ourselves of all the means at our command to thoroughly explore the nasal cavity, which will enable us to locate the seat of disease, we can apply the remedies directly to the parts affected, instead of groping our way in the dark after something—the exact nature and location of which we do not know. It is only by this means that we can make use of the most potent remedy for the treatment of chronic catarrh, and a number of other obstinate diseases of these parts. I refer to the galvano-cautery. This is by far the most effectual remedy for these complaints which we possess, and can be used with great facility under the foregoing advantageous circumstances.

With the galvano-cautery we can accomplish more in one month than we can in several months from all other local remedies combined. It is also much less unpleasant than many other remedies. During the operation in some excitable persons, they become quite agitated, more from fear than from actual distress, and re-action may be accompanied with considerable fever for a few hours, but this is the exception.

For favorable results, however, I am taking it for granted that the operator is master of the situation and understands his business, otherwise he may cause much distress, and serious consequences may ensue, manipulating with his red-hot or white-hot wires, rings or plates, in these parts.

A suitable apparatus is indispensable, and this can be furnished by Mr. John Byrne, of Brooklyn, N. Y., as full and complete as from any other source. A suitable battery is required as well as a suitable apparatus. A competent assistant is also necessary to manipulate the battery, and to increase or diminish the intensity of the heat at the command of the operator.

All things being in readiness, it is better to be conservative. Go slow and repeat the operation more frequently until a familiarity with the business is acquired which will enable us to push

the operation just far enough. When we are able to accomplish this, the most satisfactory results follow from performing the operation just right, and this must, in a measure, be acquired from experience.

Hemorrhage is frequently one of the most troublesome complications, and can only be avoided by pushing the operation slowly and cautiously, and, when it does occur, to arrest it by the application of ice-cold water, or more active styptics if necessary.

The cavity sometimes fills up badly with steam, but, by arresting the current for a moment, a few forced expirations will remedy that difficulty, when we can proceed with the operation.

Some of the advantages from this operation may be summed up as follows: We obtain all of the benefits to be derived from any kind of a cautery, and this can be manipulated so much more accurately than can any other kind. The heat can be controlled in an instant to any required degree. It can be, also, much more readily confined to the exact parts affected.

In many applications, the injury to the surrounding parts (which are comparatively healthy), is sometimes more serious than the original disease. The practice too frequently employed of injecting strong solutions of nit. argent, is perfectly barbarous. The sound membrane, which is a great many times larger in surface than that part which is diseased, is affected alike; and, while the application may have a tendency to restore the diseased portion to a healthy condition, it will cause a thickening and a diseased condition of the sound membrane, besides the serious distress caused by medicating so large a surface. We should not lose sight of the fact that in chronic catarrh, the disease is mostly confined to a very small proportion of the Schneiderian membrane. These applications must necessarily be too weak to produce anything like the full benefit to be derived from a concentrated application to the parts affected.

A further consideration is, that with the galvano-cautery we get the full benefit of the peculiar electrical effects in addition

to the caustic. This, by some, may be ignored. It may be claimed that the effects of the heat are the same whether derived from the galvanic current or from any other source. Others feel very confident that the galvanic current exerts a very powerful influence in connection with its caustic effects. Under some circumstances, and for some diseases, there is probably no doubt about it, and, in many instances, its effects are certainly beneficial.

In adopting our mode of treatment for catarrh, it is highly important that a correct diagnosis should be made. The pathological condition, in the more chronic forms of acute catarrh, is very different from that which we find in a genuine case of chronic catarrh (see articles in July and August numbers). The treatment for acute catarrh, or the more lingering form of acute catarrh, is not at all applicable to the chronic form. In acute catarrh the Schneiderian membrane is more or less affected. In the first stage, we have all the symptoms of coryza with tumefaction and dryness of the whole membrane. In two or three days the dryness and swelling diminish, and a watery discharge takes place. This soon emerges into a thick, creamy discharge, which is very indefinite in its duration, and is frequently mistaken for chronic catarrh, and treated as such without any very decided benefit. The first and second stages of acute catarrh need but very little, if any, treatment except hygienic. In the third stage, we can use our insufflations which are too frequently resorted to in chronic catarrh. In this stage of acute catarrh, they can be made use of with most decided benefit; whereas, in the chronic form, their effects may be decidedly deleterious.

Constitutional treatment should never be neglected in any stage or form of catarrh, or, in fact, for any pathological condition of the nasal cavity.

The galvano-cautery is almost indispensable in the treatment of polypi, and all forms of tumors of the nasal cavity. After having ascertained the exact nature, form, size and location of the morbid growth, select that part of the apparatus which is best adapted to attack the excrescence at the base, and then proceed to burn it out. Be sure and commence at the base,

and, when severed, the outskirts will drop off. When we cannot reach the base on account of the size and shape of the outskirts, if they cannot be compressed, it is better to excise and twist off the more superficial parts, and then apply the galvanic cautery which cannot be used to any great advantage with such preparation.

In recommending the galvano-cautery, I feel very confident that, in the hands of the faithful, judiciously used, it will meet with their most sanguine expectations.

[LIII.]

WHO KNOWS?

BY MILTON JAY, M. D., CHICAGO.

The question has been asked, "Do you believe and advocate specific medication?" By specific medicine is meant an infallible remedy; one that never fails to cure. If specific medicine means anything, it must mean that. But with specific-medicine men, the term has various and widely different meanings; no two of them define the term alike. One says specific symptoms, and another, with just as much assurance, says, specific *conditions*; and another, with still more emphasis, says specific *basic lesions*; and in each and every case where specific medicine fails (as it very often does), the advocate of the theory is always ready to cry aloud, the mistake was in the *diagnosis*, because if the diagnosis had been correct, the remedy would never have "missed fire." All admit that specific diagnosis is necessary, in order that specific medication should be successful, and stand the test of crucial examination. If writers on this subject are not agreed as to what this diagnosis shall consist in; one says specific and *positive symptoms*, and another (or the same one at different times), says, *no, not symptoms, but conditions*. Now, I confess that I cannot see how we can diagnose conditions, except by and through the aid of *symptoms*, and by the aid of diagnostic symptoms, we arrive at the *basic lesion*; the only advantage being that when a remedial agent fails, the advocate ascribes the failure to mistaken *diagnosis*. It is said that he is a good general who can marshal his forces in good order during an attack, but more

skill is generally required to have them *retreat in good condition*, and not know that they have been defeated. Specific-medicine men generally understand the latter to *perfection*.

Then again, if all these specifics in diagnosis fail, they have still other modes of escape; such as, that the *seasons* of the year influence the action of remedies, or that the *types* of diseases have changed so that the conditions are not the same this year as last, although the symptoms are. And hence, different remedies are required to meet exactly the same pathological conditions. In conversation with an adherent of the "Rademacher specific school," a few days since, he said that scarlet fever and diphtheria required different remedies this year; that two years ago chlorate of potassium was a specific; one year ago nux vomica was, but that this year *iron* was a specific. "Well," said I, "are your symptoms and conditions just the same as during previous years?" "Oh, yes; just the same." "Well, then, why not use the remedies you used one and two years ago?" "Because," said he, "they *died* under that treatment, and I had to search for other remedies." He hadn't discovered the *basic lesion* this year.

I remember a few years ago, in Cincinnati, a lecturer one year treated almost every diseased condition with iron, but the next year *potassium* was the specific, and the next collinsonia, and the next the "*little-joker pills*." But now it does not matter so much about the pathological conditions, so you use "specific tinctures" with label, "copyright secured." Oh, "consistency, thou art a jewel!" Now, if specific medication means anything, it must mean an infallible or never-failing remedy, that is, where the same conditions, symptoms and basic lesions exist, the remedy will always have the same effect, no matter what the difference in *constitution* and *temperament*, age or sex, if the structures are similarly affected, and from the same cause, the remedy will meet the indications required in every case. Now, I say, I know of no such remedies; I know of no infallible or never-failing remedies; and such a medicine as a specific for any diseased or pathological condition, has never been known. Yes, says one; *opium* will always relieve

pain. Every practitioner knows that it will not. Ergot generally causes uterine contractions, but it will not always do so. Alkalies will not always clear the furred tongue, nor acids change a red tongue. I was looking over a little book the other day, entitled "Specific Medication." Out of ninety-three pathological conditions mentioned demanding treatment: in seventy-seven the agent to be given was selected according to whether the tongue was *furred* or *red*, so that in this work, at least, the tongue seems to be the diagnostic organ, to the exclusion of all others, and very often, more important symptoms. We have had "specific-medicine men" in the profession from its earliest existence; men who when they have found—to them—a valuable remedy, have been ready to cry *Eureka!* get out hand-bills, and go into the advertising business, claiming that all diseases are curable by a single remedy, or combination of remedies. Others have a specific for each and every pathological condition. If all constitutions and temperaments were alike, and the same medicine produced similar results in all, if there were no idiosyncrasies in the human family, in short, if there were no more differences in the constitutions of different persons than in steam engines of the same pattern and make, one might expect the same effect in each person by the administration of the same drug, as we expect to produce steam in each engine by administering fuel and furnishing water. All persons are not influenced in a similar way by medicine, when the system is in a state of health, neither are they by articles of food; that which will benefit and nourish one, will be detrimental to another; hence, we must not expect in a diseased state that the same remedy will produce the same results in all persons, even though the pathological conditions are similar, or the same. So long as the conditions and phenomena in health and disease are not the same in all persons, the action of remedial agents cannot be the same in all. Hence, positive or "specific" medication exists only in name, not as a reality. The intelligent and educated practitioner will become disheartened and discouraged with the practice of medicine, if he has risked his all on the specific remedies, when he realizes that his failures are more

numerous than his successes. The physiological action of remedial agents is a subject that has claimed a large share of the medical thought for the past few years, and its importance demands it. The well-educated and observing physician will have learned by experience and close observation that while he is generally successful as a practitioner, yet he is compelled to admit that there are no such things as "specifics," because his most reliable remedies may fail. And to attribute all failures to a mistaken diagnosis, is simply a baby way of begging the question.

We may have well-founded ideas as to the *modus operandi* of the physiological action of remedies, as for instance, how tonics, or cathartics, or diuretics (or any other agents) act; upon what structures do they act, and in what way; as well as the effect produced by such action, both immediate and remote; what impression will be made on the nervous system by such action; what change will be produced in the blood, etc., etc. These are questions that the therapist may have correct ideas concerning, but to say that a remedy *will* produce a certain and specific effect, is more than mortal can tell. Really, we have but few self-evident propositions in physiology; even what we now call a physiological *law* is subject to change by the phenomena of the organism, and, while our knowledge of the physiological action of the human system is so limited (as to the real causes that produce them), that we can with difficulty establish a *law* that will not very soon be superseded by another, and one more nearly correct. Shall we claim a more thorough knowledge in pathology and therapeutics than we have in physiology? We cannot, but the "specific" man says, it's no matter whether I understand how a remedy acts, or in what way, so that it always meets the same pathological conditions. Well, if you do not understand the physiological or remedial action, or symptoms, how do you know that you have the same pathological conditions, and, if you do not know this, how can you know that the remedy is a "specific?" Because you use a remedy in a number of cases, and because they all recover, you pronounce it a "specific." The proof is not sufficient, because a large majority of cases will recover without medicine,

and the "specific" receives all the glory. I know of nothing in this world that is *infallible* and *never-failing*; not even the *Pope*, and I know of no *specifics*, either in medicine or in any thing else.

[LIV.]

RHUS AROMATICA.

BY J. T. MCCLANAHAN, M. D., OF BOONEVILLE, MO.

After many years of knowledge and experience with the above, I am prepared to pronounce it one of the most valuable remedies known to the materia medica for all excessive discharges from the genito-urinary organs, accompanied by relaxation of the organs, and in chronic diseases by general debility. In the treatment of hematuria, uterine hemorrhage, diabetes and enuresis, it has no superior in my hands. I believe it to be as near a specific for the latter as quinine is for ague. One or two illustrations will serve my purpose here: Georgie T., aged seven, had been troubled with enuresis for more than a year, thought to have been caused by falling on a fence rail. His mother said he could not retain his urine at any time longer than three hours, and that during the night would suddenly cry out before urinating. Complained of headache, and was very often dull, listless, and slept through the day. There was a general debilitated condition of the system, still the other functions were pretty well performed, and appetite good enough. I thought this a good opportunity for the *Rhus Aromatica*, therefore I gave the mother an ounce vial containing two parts *Rhus Aromatica*, and six parts dilute alcohol; dose, five drops every four hours, and to report in three weeks. In due time she returned, stating that her boy was much improved so far as the urinary difficulty was concerned, but that he still complained of headache, and was dull and sleepy. For the head trouble I gave belladonna, making the prescription as follows: *Rhus Arom.*, 3ii, belladonna, gtt. xx, dil. alcohol, 3vi. M. Sig. Five drops four times a day. Improvement was rapid in every respect, and in three months my little patient was well. I will say just here, where complications exist calling for additional remedies given, there otherwise the good effects

of the *Rhus Aromatica* might be lost. I can, however, show equally as many cures accomplished with the *Rhus* alone.

I have also had some failures in the treatment of enuresis with this remedy, but they were mostly in robust children, resulting more from habit. But where the child is thin in flesh, pale-faced, eyes sunken, flabby skin and abdomen, it will not fail if given in small doses and continued for some time. Of course, in every instance the diet, clothing, bathing, exercise, etc., must be attended to.

Mrs. M. called August 7, last, with her daughter, aged fourteen. Stated that for some months previous she had urinated too much, especially at night, and that early in the spring she had an attack of ague, which was readily interrupted, but since which time her urinary difficulty had steadily increased until it had become alarming. She exhibited a bottle of urine which had been voided before leaving home (a distance of thirty miles), which, under the usual tests, I found to contain sugar in a moderate quantity. Her temperature exhibited $100\frac{1}{2}$, pulse, 90, skin and conjunctiva showed the presence of bile, some tenderness in the region of the liver and kidneys, bowels somewhat constipated, constant bearing-down sensation in lumbar region, appetite ravenous, loss of flesh with a cadaverous expression, and a general sense of lassitude and languor. Prescribed:

R	<i>Rhus aromatica</i>	℥ss.
	<i>Chionanthus virg.</i>	℥ss.
	Dilute alcohol.....	℥ii.

M. Sig. Half teaspoonful in water every four hours.

R	<i>Quinia Sul.</i>	gr. xlv.
	<i>Strychnia Sul.</i>	gr. ss.
	<i>Carb. iron</i>	℥i.

M. Fiat pill No. 45. Sig. One pill three times a day, and to repeat in two weeks. Patient has rapidly improved, until now I feel safe in saying she will recover. Treatment has varied somewhat, except the *Rhus Aromatica*, in which the dose has been mitigated only. I ordered a diet of brown bread and butter, milk, fruits and fresh fish, which has been rigidly

adhered to, together with proper clothing, bathing and exercise. The latter prescription I ordered as a tonic and nerve stimulant, and the chionanthus for the jaundiced condition the Rhus taking care of the diabetes.

As a remedy for hematuria and uterine hemorrhage, I use it as I would gallic acid, engeren, cinnamon, etc., in doses five to fifteen drops of the saturated tincture, repeated as thought necessary. I have many times relied upon it alone and with satisfaction, until now I rarely use anything else in my obstetrical practice for hemorrhage. It is also an admirable remedy in summer diseases of children. Indications for use are: Stools free, pulse feeble, skin and abdomen flabby, pale face and loss of flesh. I am satisfied the Rhus Aromaticum is adapted to other diseases of the mucous surfaces, which time and experience will develop. This much I know from personal observation, that when physicians come to know this remedy, they would not discard it under any ordinary circumstance.

[LV.]

EPILEPSY OR STRYCHNIA, WHICH WAS IT?

BY D. W. BERDAN, M. D.

Between 9 and 10 o'clock, on the morning of October 2, 1884, I was called to see Harvey E. Welton, who had a few minutes previous fallen to the walk in a convulsion, striking his head on the smooth, stone pavement. Upon examination, found a large, ecchymosed spot, about two and a half inches in diameter, a little above, and to the left of, the occipital protuberance. No fracture at that point; also blood passing the orifice of the right ear, which continued to flow five or six hours, containing considerable serum toward the last. Was taken home, and in half an hour was quite rational. Gave him twenty grains of bromide of potassium, with directions to keep the room dark and have him lie quiet, and at 12 o'clock give him ten grains more. Learned that he had been in the Kalamazoo Asylum for two years—out since March last, apparently well, except an occasional sick headache. When I first saw him, though it was an epileptic case, and, from the symptoms thus far, he

no reason to change my mind. At 12 saw him again ; learned that he had vomited a considerable amount shortly after I left. He then talked rationally, but complained of severe pain in his forehead. Thinking that he had ejected the medicine, repeated the dose and left. At 3, his sister came to my office with a paper marked: "Strychnia, 10 grains," inclosed in a small envelope, opened at one end, which was taken from his pocket. I immediately saw him; found him apparently enjoying a natural sleep; pulse and respiration natural; saw no symptom of strychnia poison. Gave directions as above; went to the drug store where the paper was procured; weighed the balance, and found seven grains. Saw him at 4 o'clock; could not rouse him; found the right pupil widely dilated; a very little spasmodic action of the muscles of the thorax and arms, which was not paroxysmal; no paralysis of either side. Then came to the conclusion there was pressure of a clot of blood on the brain, and probably a fracture of the base. Respiration became more and more laborious, until 6.30 o'clock the next evening, when he died. Three hours before he died, frothed at the mouth for an hour. As it was impossible to have a post-mortem, could not state positively the condition of the brain. The question of interest to me is the cause of the convulsion.

If it was the strychnia, then we can safely say that the injury of the brain so modified the symptoms that they could not be detected. The fact of his having the strychnia and the three grains missing, strongly confirms his having taken it. Still, the sister might very easily have lost the amount missing, as she opened the paper before I saw it. He had never, previous to this time, had a convulsion to the knowledge of the family.

Was the convulsion epileptic, or the effect of strychnia?

[LVI.]

EUPHORBIA CORALLATA.

An excerpt from "New Medicines," a work by Prof. I. G. M. Goss, of Marietta, Ga., published by Parke, Davis & Co., of Detroit, Mich.

This is a remedy that, from having been used mostly in the form of infusion, has never been properly appreciated by the

profession. It exercises a very special influence upon mucous tissues, relieving irritation, and promoting their activity. It materially promotes the activity of the digestive organs. For this purpose the dose should not exceed five to ten drops of the tincture. In medium doses, say eight to ten drops, it stimulates peristaltic action, as well as the action of the liver and pancreas.

Like ipecac, it may be used in small doses, say one or two drops, to check vomiting. In chronic inflammation of the bowels, and that peculiar condition giving rise to chronic diarrhoea, it acts well. In large doses, it acts as an emetic or cathartic, or both, but in smaller doses, it acts on the kidneys, and therefore aids in the cure of dropsy. It resembles, in action, gillenbergia trifoliata or stipolacca; they all purge or vomit in toxic doses, but in medical doses, they act well upon the stomach, liver and bowels. The medium dose is five drops every three hours.

[LVII.]

USTILAGO MAIDIS.

A Paper read before the Eclectic Medical Society of Chicago.

BY DR. ION VERNON.

I will call your attention to-night, for a few moments, to one of the new remedies brought to the notice of the profession by the firm of Parke, Davis & Co. of Detroit (allow me here to say, one of the most reliable manufacturing firms, to my mind we have, and who, through their efforts, have brought to the notice of physicians several new remedies that we could hardly dispense with). I allude to *Ustilago Maidis*, which was brought to the notice of the profession by Parke, Davis & Co., for the first time, January, 1877, although the Homœopaths had used it since 1866. It was brought to their notice by Prof. E. Hale, of their school. The points to which I would more particularly call your attention are its uses as a remedy in threatened miscarriage and uterine hemorrhage, also as a reliable agent to promote uterine contraction, whenever a remedy was needed for that purpose. I have, during my practice, used all the remedies for that purpose that came to my notice, and

until I used the *Ustilago Maidis*, I never felt assured I could give any one thing for this purpose fully expecting certain results to follow. I will speak of a few cases, culled from memory, not having my note-book at hand. One of the first cases, in which I made use of the *Ustilago Maidis* as a remedy for threatened miscarriage, was Mrs. S., aged about thirty-two years, in the fifth month of pregnancy with her first child, from constant overwork, was threatened with miscarriage; at 3 P. M. was taken with hemorrhage of the uterus; at 3.30, her husband called upon me and stated the case; being engaged, I gave him 1 oz of *Ustilago Maidis*, directing him to administer it in fifteen-drop doses every half-hour; before the second dose was due I saw my patient, and found the garments about her to indicate the loss of two or three ounces of blood; gave two more fifteen-drop doses during the next hour, after which the hemorrhage ceased. She made rapid recovery, went the full period, and was delivered of a healthy child. In my estimation, *Ustilago Maidis* was the remedy needed. In another case, Mrs. V., aged thirty-three years, of sanguine temperament, mother of two children, and never having miscarried, while on a journey from Memphis to Marcellus, Mich., in August, 1878, miscarried at a little past the third month, at Springfield, Ill., where she visited friends. After her physician thought it safe for her to travel, she started on her journey home. After she arrived at Marcellus, Mich., the hemorrhage increased; during the next seven or eight weeks, she was under the treatment of three physicians but received no permanent benefit. The last week in October, she came to Three Rivers, Mich., to visit friends. Her husband was attacked with chills and fever. I was called to attend him, perhaps not for any superior knowledge or good looks, but for my reputation for giving heroic doses, when needed. My patient had a good constitution and recovered. Not having his life insured, his wife *professed* to be thankful and consulted me in regard to her own case. I decided to give the *Ustilago Maidis* a trial. Gave her one half-ounce, directing her to take fifteen drops every four to six hours. In seven days, she called at my office, reported herself well, paid her bill, and next day started for

Memphis. I have also made use of *Ustilago Maidis* on a patient of mine (who has since been operated upon and made a successful recovery), in case of ovarian tumor. For more than one year, unless using some of the preparations of ergot, (which was first advised by Dr. Barnum, of Schoolcraft, Mich.), the tumor would press the uterus out of the vaginal cavity; the action of the ergot, after a time, became almost a failure. I ordered *Ustilago Maidis* in ten-drop doses, from three to four times per day. In midwifery, I have used *Ustilago Maidis* in seven or eight cases, and have not been disappointed in the desired effect. In my experience, by the use of *Ustilago*, there has been an entire cessation between the pains.

I have, during the year 1879, prescribed it for several women who were troubled with too long a menstrual period; by its use, the flow has been shortened several days. In cases of this kind, I order patients to commence using it after the third or fourth day, in five to ten drop doses, three or four times a day. Also, have used it in one case of spermatorrhea, in connection with potassa-bromide. My formula is: Potassa bromide, $\mathfrak{z}\text{i}$; *ustilago*, $\mathfrak{z}\text{ss}$; comp. spirits lavender, $\mathfrak{z}\text{ss}$; aqua, $\mathfrak{z}\text{vi}$; mix. Dose, one teaspoonful at 7 A. M., and 7 P. M.; also, two teaspoonfuls at retiring. The patient called upon me and reported himself well.

SELECTED.

Disease.—A Disturbance of the Equilibrium between Innervation and Nutrition.

BY E. D. BUCKMAN, M. D.

THE NATURE OF DISEASE.

This subject has been so often discussed with so little profit as to absolute conclusions, that it seems superfluous for such an obscure writer as myself to attempt the subject—but an analysis of the generally accepted doctrine that disease is a lowered vitality has revealed so many incongruities in the teachings of medicine, that I was compelled to abandon the ground, and seek for some more general basis of philosophy—

this has been sought for on the basis of force and its sequences in the human body—and after having tested my conclusions by years of experience in their application, I am now enabled to present the reasons that have led me to the conclusion that *disease is a “disturbance of the equilibrium between innervation and nutrition.”*

“That by the excess of innervation there will be diseased glandular conditions, with excess of function, and impaired nutrition, accompanied by anæmia, in proportion to the violence of the excess, and that in extreme cases, death results from the spasm of the blood-vessels, and the failure of nutrition, incident to such spasm.

“That by the deficiency of innervation, there will be disease of the glandular conditions, with diminished function that produces disease in proportion to the inertia; and the extreme of which death results by stagnation of the blood in the vessels.

“These are the only forms in which disease exists in any gland or part of the body, and the only two conditions requiring study in making a diagnosis of, or in determining the treatment of any disease.”

In support of these propositions, we start with the axiom so well established in the minds of scientists, that it is not even questioned. That no action ever occurs that has not been prompted by sensation, nor effected without an expenditure of force, and no force is ever produced, except by a conversion of material, in which a portion of material disappears, and a corresponding degree of force is set free to act as may be required of it.

The ganglionic center, known as the ganglia of the sympathetic nerve, are the centers from which emanates the nerve force controlling organic life. This has been so well proven by the experiments in vivisection, that it is no longer a question of doubt. All the authors of late date accept the statement as being established beyond controversy.

It is also well established that each gland of the body has a ganglion or nerve center controlling it, in all that pertains to its functions.

The experiments in vivisection have shown conclusively in every case, that when the nerve connections between gland and ganglion have been severed, the gland is no longer able to perform its functions, until the communication has been re-established either by the formation of new fibres, or a re-union of the old ones.

The proper communication between gland and ganglion being established, the glandular products are formed as long as there is material present, with which organization can be effected. This material is conveyed to the parts by means of channels known as blood-vessels, and are there converted into cell structure, by the force produced in and sent out by the ganglion.

This power, constantly working upon the ever-flowing material, abstracts from it the elements for cell growth, and is constantly building up new cells on the walls of the ultimate capillaries, that constitute the connecting link between the arteries and veins. These elements, being derived from the moving current, are constantly deposited upon the inner side of the capillary, where they perfect their growth in the form of cells.

The previous deposits are thereby pushed further outward, thus becoming more external to the vessel, while further new deposits upon the interior are as continually maintaining the round of development, by growing up from the base of supply, while the oldest cells are dying off from the external surface.

This is exactly in accord with the phenomenon that nature presents every place where formation is accomplished, and it seems quite remarkable that there should not long since have been established the law of nature "that every growth is upward or outward from the base of supply," and that "when the growth has perfected its service, it dies from the exterior."

These exterior parts, as they become perfect in their development, are as the ripe fruits of our gardens and fields, and fall off to become food for the benefit of other animals and organisms. And so of the cell structure of a gland, as it becomes

perfected in its organization, falls off as ripe fruit, constituting the secretions of the gland.

This constitutes the essential difference between the teachings of the older schools and the school of which the writer of this article happens to be a member—they teaching that secretion is analogous to a distillation of the essential parts of the material used for digestion; and in the process the products transude through the walls of the vessels into the gland ducts—while we teach that the nutrient elements of the circulating fluid are organized into cell structure upon the walls of the capillaries; that these cells constitute the gland; that as these cells mature, they fall off like ripe fruit from the trees and plants, and that this fruit as it falls into the gland ducts breaks down into a liquid substance, that is then known as the secretion.

Studying the subject more in detail, it will be seen that every gland hangs or stands upon the blood-vessels and nerves supplying as grapes upon their stem, or foliage upon a tree; the stem or trunk corresponds with the blood-vessels, and the fruit or foliage with the cell structure.

When the fruit or foliage falls away, it drops into the interspaces, which are open channels of exit—corresponding with the gland ducts; and when the fruit or foliage gets to the ground, it is buried, or its elements pass into the soil, where it is consumed by some other organism, just as the cell products are, under the name of secretions, consumed by other glands for the ease and comfort of the body.

In all organic structures, the nutrient material is prepared in a digestive gland, and carried from it to the other glands by a system of channels, that in the plant are called sap-tubes, and in the animal, blood-vessels.

In the vegetable world, those vessels terminate in the cell structure of the organism; all the material carried there is assimilated, the excrementitious or disintegrated matter is gaseous, and is eliminated into the atmosphere; but in the animal, the disintegrated matter is, to a considerable extent, eliminated by the lungs, hence certain channels are required for the conveyance of the circulating fluid, hence there is a double

system of vessels, the outgoing being known as arteries, and the incoming as veins, and the connecting fibers or infinitesimal branchlets are known as capillaries. It is upon the walls of these capillaries that the cell structure, constituting the gland, grows—therefore, a gland is an aggregation of multitudes of capillaries with their cell growths upon them, between the interstices of which the disintegrated cells find their way to the gland ducts, and from there to the place where they are consumed or evacuated. The function of these arteries or outgoing vessels is to carry the blood out to the place in the capillaries where it is to be used or consumed.

To accomplish this function of circulation, a degree of force commensurate with the case is required. This is supplied by a system of nerves that start from the ganglion controlling the gland, are distributed among the muscular structures of the vessel, and terminate in the varied structures, whose purposes are thus served, that is to say, the motive fibers move the muscular power, and the organic fibers move the growing power; the former nerves terminate in the muscular fibers of the artery, the latter in the cells of the gland.

The effect of a manifestation of force is to produce action; when brought to bear as nerve force upon an artery through its muscular fibers, it produces contraction of the walls of that artery as long as the force is maintained.

When a ganglion sends out a degree of force, it travels onward upon the trunks of those nerves, contracting the walls of the vessel as it goes, until the amount of the force is expended at the extremities of the vessels, in the performance of its office.

In doing this, it has pushed the blood-mass in the vessel before it, throughout the whole length of the vessel, and thus has constituted a pulse-wave, that is followed by another, and others at intervals as frequent as the force can be re-accumulated; and thus arises the pulsation that moves the blood through the arteries to the veins, or at least to the capillaries, if not to the veins.

The sensor fibers have their primary and perceptive extremity distributed within the gland, these are influenced variously

by the presence or absence of the various elements, that come in contact with them; being freely distributed upon the lining membrane of the vessels and ducts of these organs, they are excited or depressed by the condition of the fluids passing over them, if irritating, the excitation of such presence makes a demand on the ganglion for a force, which is immediately responded to by the transmission of an amount of force intended to be sufficient to expel the offending matter, or at least to push it forward in the channel in which it is moving. In this way the blood is kept circulating in the vessels, and the secretions in the various ducts that transmit them.

When the flowing material is unirritating, the tendency from the absence of excitement is toward inertion or, as is often called, rest or congestion.

The ganglion controlling the functions of a gland, possesses sensor motor and organic nerve fibers, and thereby producing corresponding forces. When the power of a ganglion is intensified by any exciting or other force, its function is correspondingly intensified; consequently the walls of the vessel are drawn more closely together, its diameter diminished, and its capacity reduced. The pulse-wave, being constricted in its volume, is extended in its length, so that the vessel seems like a cord, and the pulse-wave small but quick, and jerking in its impulse.

A further aggregation of this condition, it will readily be perceived, may constrict the vessel to an extent, that little or none of the circulating fluid may pass through it, when the gland will incidentally be anæmic in proportion to the intensity of the nerve energy excited.

It will also, in proportion to the intensity of this nerve energy, be increased in its functions and products, until the extreme condition having arisen, function ceases from the absence of material necessary for the production of secretion—here then the death of the part occurs from the extreme violence of its own actions, at least a diseased condition exerts all the way along from the condition of ease and comfort manifested by excess of function, until its own excesses stopped its career entirely. Yet I think no one will for a moment argue

that in all this there has been any lowering of vitality during the process.

In all of the phenomena herein described are exhibited those conditions incident to what is termed chronic disorganization or as some of the older writers have absurdly termed it, chronic inflammation, and in the closing one of extreme results, tendinitis is subsultus tendinum, and too often death.

Thus far the arterial action is concerned, in all this the gland is in a corresponding degree of activity. But considering this, it were well to understand a little better the textures and construction of these little vessels. First, they are not so liberally supplied with muscular fibers, and have even claimed that they are entirely devoid of any contractile power, but they pulsate slightly, which may be regarded as evidence of so much contractile power.

The walls of these vessels are made up mainly of an unorganized structure, that has been called basement membrane. This has been deposited from the coagulable portion of the blood, which here approximating from the diminished pulsatory movement a quiescent state, becomes to be adherent to itself somewhat after the manner of a coagula, the mechanical current of blood corpuscles pushes it aside in the lateral directions, thereby forming it into a tube of very small diameter and called a capillary vessel.

This membranous investment is thus formed from plastic material without being organized by growth, and like the deposits on the bottoms and margins of streams, may contain the seeds of any cell structures that may have been dissolved therein.

Whether such be the fact or not, has not yet made its revelation; however, this instrument has said to us, that the basement membrane is a mass of cell structures, that are smallest on the inner side next the current and larger on the outer side distant from the current.

From the fact that these cells have this unorganized basement membrane as the base on which they grow, it has very appropriately been denominated basement membrane. The blood current pressing through the vessel is constantly depositing

coagulable debris upon the periphery, and by its pressure pushing the walls outward, while the cells, imbedded in its structure, are as constantly growing, so that new deposits are constantly forming upon the inner surface, and the older cells dying off upon the outer.

This is visible to every observer in the skin, the nails and the hair, which are but types of the glandular structures of the liver, kidney, pancreas and other emunctories of the body. Here the whole phenomenon of cell growth is exhibited, beginning with the molecule and terminating in the finished cell with its nucleolus-wall and contents, when, having completed its living destiny, it falls off and becomes food, if not for worms, at least in many instances for the animal that grew it.

These cells grow, not by virtue of any force inherent within them, for if this were the case, it would be possible for them to begin themselves by virtue of the inherent power of nothing, which is impossible; then it follows that they grow by virtue of a force outside of them, being brought to bear upon them, causing them to seek the food that supplies the want produced by force of the external impulses; it is very evident then, that their growth varies with the intensity of the impulses, being fast or slow, firm or delicate, according to the activity and energy of the governing force. When the force is active, as has already been shown, the function is necessarily increased and more productive (incidentally results), but by the same efforts the material of nutrition is diminished in quantity, so that the greater amount of force is concentrated in the smaller production, and, consequently, instead of being bland, soothing and enjoyable to the structures that use it, is acrid, irritating and painful, so much, that the structure is universally admitted to be diseased, when such conditions are existing.

Now it is quite apparent to the reader that these results are not dependent upon a diminished vitality, but, on the contrary, upon an increased nerve activity, and the condition of the gland or the person, as the case may be, is one of excessive innervation.

The logical inquirer will naturally raise the question as to the mode of maintaining the circulation of the capillaries and what is their condition during the state of excessive innervation, it being remembered that the muscular fiber is almost, if not entirely absent in the walls of these vessels, consequently no dependence can be placed on muscular power for the work.

In the organization of the cell structures, oxygen is necessary to their vitality; the actual ultimate breathing of the body is done by these structures, the oxygen taken into the lungs is for their use, and the carbon thrown out has first been excreted and disintegrated by those growing cells, consequently in a state of increased functional activity. These cells are crying energetically for more oxygen, if it should so happen that a person of exalted nervous susceptibility is in a crowded hall, where the atmosphere has been largely divested of its oxygen by repeated breathing from a multitude of persons, then the suffering cells manifest their demand by increasing the energy for supply, until in the violence of their efforts they constrict the arteries so firmly, that the circulation is almost entirely interrupted, and the person, from the excess of this energy, becomes suffused with an intense perspiration, a sense of sinking and nausea comes on, and is followed by a fit of fainting, that is only relieved by the introduction of fresh air.

Our pathological friends have been describing this condition of the body as of weakness and inertia, but on the contrary, it is fairly to be regarded as a loss of power arising from the want of material with which to produce power.

But to return to the forces moving the circulation through the larger vessels, surrounded by muscular coatings, the power is undoubtedly muscular, and by it the blood, consisting of fibrine, nutrients and blood-corpuscles, in a heterogenous mass, is forced forward to these capillaries, where the muscular force being withdrawn, they would cease to move, except for other causes.

The fibrinous portions, consisting mainly of the walls of dead blood-corpuscles, begins to become adherent to its particles, one to another is pushed to the sides of the vessels, forming

their walls of basement membrane; the nutrient material leaves the roots of the growing cells, furnishing them with material for growth, and the corpuscles, coming loaded with oxygen, are attracted to the cells, which abstract from them the oxygen, and return a corresponding load of carbon; in the former condition they (the cells and corpuscles) are mutually attracting, in the latter repelling, so that the corpuscle, at first being drawn to the cell, is now with its new load pushed away, and not being able to pass back by the road it came, by reason of the pressure of muscular force, must necessarily move forward, and is ultimately pushed into the veins, through which it returns to the lungs, from which we recognize it as starting.

In all of these results there is action to produce them, and force developed in the nerve center to maintain, and in no sense can it be maintained that an increase of function be sustained by lowering the vitality from that comfortable condition that we recognize as health.

It is true, however, that when we find a person with arrested functions from excessive innervation, the indications are to endeavor to lower the vital action, and it is found that, as this is accomplished, the functions are restored, or at least improved in proportion as the condition is changed, this argument, however, tends to show, that in conditions of disease, resulting from an exalted nerve energy, health would be promoted by a lowering of the vital energies, or at least of that force, which is quite popularly known, but indefinitely understood as vital force, vital power, vital tissues.

Pursuing this subject further, and descending the scale of power, the results of diminution of force from nerve centers will be as marked as have been those arising from increased innervation, for, when speaking or referring to force, it is in the physiological sense applied as synonymous with innervation.

Referring back to the condition of the gland in healthy action, when all its functions are performed in ease and comfort, and without jarring or irritation, then the functions of innervation and nutrition are in equilibrium, the blood is flowing

smoothly through the channels, and the nerves are quite organizing the food into cells, which in their turn are bound to live to fulfill the purposes of their existence and die, become food for the rest of the animal, or otherwise, as the case may be.

Taking the standard of health as a starting point, and reducing the power of the ganglia, so that less energy is exhibited, then the function of the artery as a carrier will be diminished; its diameter, from the loss of energy, will be increased, the pulse-wave enlarged in volume, and shorter, so that the pulse will be recognized as full and bounding, and compressible in proportion to its increase of volume.

The effect upon the gland is of the same character; as the governing force diminishes, the capillaries become relaxed and consequently distended with blood, the energy of growth being reduced, the attraction of the cells for oxygen is impaired, so that the corpuscles are not carried or pushed forward into the veins, consequently are packed promiscuously in these minor vessels; the fibrinous portion, not being kept in motion, begins to coagulate and agglutinate the parts together, the nutritive material is not very much assimilated by the cells, and the cells too are unable to disintegrate the carbon of their bodies, so that a general stagnation is existing from this inertia of the ganglion; and as a consequence there is heat from the accumulation of matter, and the tendency to putrefaction that is attending, redness from the presence of an undue quantity of blood in the vessels; swelling from the collection of matter, and tenderness from the tension of stretching and pressure upon the nerve filaments of sensation included within the suffering part. All these phenomena in their aggregate comprise the condition known as congestion, the precursor of inflammation, a condition, recognized by the medical profession through all its history as being one of activity, but which if here analyzed from its causes, correctly is one approximating inertia.

The condition of the gland during this time is one of diminished function, it is dry and hot, and few or no products are issuing from its ducts, for the reason that the forces

organization being reduced, the production is diminished in proportion to the approximation to inertia.

Should this condition of inertia remain for a time, the tendency to putrefaction begins, and disorganization follows in the time required for such result, with consequent destruction of tissue in the form of abscess.

The condition of inertia, however, is usually followed in a short time by a reaction, or waves of reaction, indicated by sensations of heat and chilliness alternating over the body—then inflammation has begun, and, if successful, the aggregation of the congested body may be organized into an indurated structure about as useless for glandular purposes as any foreign body there situated.

Now here is illustrated the fact, that disease is a result of a lowering of innervation, just as certainly as it occurred from an exaggeration of it.

It is also quite apparent from reviewing the subject, that death will occur from either extreme, in the one instance occurring by spasm and anæmia, in the other by inertia and putrefaction, and this is equally true whether occurring to the gland or to the whole body.

It will also be apparent, on a review of the subject, that all diseases of glandular structures can occur in but two forms, one of excessive innervation with increased function, the other of diminished innervation with lessened function—conclusions that very greatly simplify the science of medicine, and relieve much of the obscurity that has governed its teachings.

Not only is the science simplified, but revolutionized by these teachings—if inflammation is not active but passive, then the philosophy of administration of remedies is at fault, and there must be questioned, as to whether, in their action, they increase or diminish the innervation of any particular ganglion alone or of several of them consecutively; and having developed their powers on this basis, it will be somewhat easy to determine when to administer a glandular depressant or excitent, and consequently produce more prompt and decided results than have yet been had by the practice of medicine

upon the at present generally accepted theory of what is understood as vital action.—*New York Eclectic Medical and Surgical Journal*.

The Cure of Consumption.

It is now pretty generally believed, universally we might say in the medical profession, that the age of miracles is over, but the statements now starting the rounds of the medical journals in Germany regarding the cure of tuberculosis by the inhalation of the benzoate of soda, are calculated to renew the most sinking faith.

In the number just received of the *Wiener Med. Wochenschrift* (No. 39, 1879), we read the following notice:

In the K. K. Allgemeinen Krankenhaus of Vienna, the newly discovered miracle cure (*wundermittel*) of tuberculosis, viz., the benzoate of soda, has awakened the most intense interest in medical circles everywhere, and inhalations of this substance are now going on in every room of the hospital. Prof. Rokitauský, Jr., is credited with the marvelous discovery of the virtues of this agent.

The next number (No. 40), contains the following note, addressed to the editor:

GREISWALD, September 30, 1879.

HOCHGEEHRTER HERR—In regard to the newly discovered *wundermittel* discovered by Prof. v. Rokitauský, in Innsbruck, for the cure of tuberculosis, the *natrum benzoicum*, I take the liberty of testifying that I first tried it in tuberculosis processes of the lower animals. My investigations regarding the genesis of scrofulous and tuberculous inflammations of the joints (see my preliminary communication in the *Centralblatt f. Chirurgie*, No. 43, 1878, and No. 19, 1879), led me to the conviction that they depended upon a localization of the infecting substance in the artificially contused joints. Definite experiments convinced me that the micrococci contained in the tuberculous virus I selected for my inoculations, constituted the infecting substance, as was first pointed out by Klebs.

By a repetition of Klebs' breeding experiments, I could collect these micro-organisms, render animals tuberculous by means of them, and thus confirm entirely the statements of Klebs. A part of these my breeding experiments were conducted by one of my former pupils, Dr. Reinstadter, in association with me, and the results were published by him in his dissertation in the *Arch. f. Pathologie*, No. 11, under the title "*Ueber Impftuberculose*," (inoculation tuberculosis.)

After these demonstrations, I commenced some therapeutic experiments, and selected first the benzoate of soda, aqua creosoti, and some other agents which are known to have an "anti-bacterian effect." It now occurred to me to study the effects of these agents on tuberculous affections of the joints. I soon discovered their very remarkable effects, and continued my investigations.

I communicated my first observations to our medical society here February 7, 1879, and then published them in the *Arch. f. experiment. Pathol. u. Pharmakologie*, Vol. II, p. 84. Since this time I have been continually at work, and am now able to confirm all the statements made at first.

It was these observations that induced Prof. v. Rokitausky to try the remedy, the benzoate of soda, on man. I rejoice that he has succeeded in obtaining the same results in man that I obtained in the lower animals, but I may remark that we have already made the same observations upon man here.

DR. MAX SCHULLER,

Privat docent Assistent Arzt der Chirurg. Universitäts Klinik

The *Wiener med. Wochenschrift* appends to this letter the following remarks:

This matter is certainly important enough to excite further experiments, even if the cases in which the signs of "tuberculous cavities" disappeared so rapidly should turn out to be only bronchiectatic dilatations after emphysema and chronic catarrh, conditions far more frequently met in Tyrol than pulmonary phthisis, which is rare. For these diseases are also very obstinate to treatment, and are often dangerous.

We are, moreover, in position to communicate a letter from Dr. Krocak, of Innsbruck, to one of his patients received a few

days ago. The patient had seen in a daily paper an account of the newly discovered cure of tuberculosis, and addressed himself to the physician, from whom he received the following response:

INNSBRUCK, September 24, 1879.

EUER WOHLGEBOREN—Our new method of treatment can only be conducted under medical supervision, and may not be properly described by letter. We use one part of benzoate of soda in a 5 per cent solution twice daily, to the thousand of the body weight, by means of a good atomizer for seven weeks without interruption. With it, we enjoin the use of abundant satisfaction of the rapidly returning appetite with meat diet, fresh air, and abstention from all debilitating causes. You may get a good and tried apparatus at O. Kements, Apothecary at the "heil. Anna."

DR. KROCZAK.

We may add still further, continues the Vienna paper, that our druggists can hardly supply the demands for the benzoate of soda, as the use of it has surpassed all medical prescriptions. It is, indeed, bought up on every hand.—*J. T. W. in the Lancet and Clinic.*

On the Use of Jaborandi and Pilocarpin in Eclampsia.

BY B. B. BROWNE, M. D., BALTIMORE, MD.

At our last meeting, we had a very interesting discussion upon the subject of Puerperal Eclampsia; although I have seen very decided benefit from nearly all the remedies spoken of, yet I think that Jaborandi and Pilocarpin, which have lately been giving such favorable results in these cases, should have met with some notice, especially as they are now taking the first place among our remedial agents in this very dangerous and much dreaded complication of labor.

As my experience in the use of these remedies in puerperal eclampsia is confined to one case, I will also report five other cases of non-puerperal eclampsia in which they were used:

CASE 1. Mrs. C., aged about thirty, in the seventh month of her second pregnancy, was attacked with puerperal convulsions on the morning of March 6, 1878; her physician, Dr.

G. F. Adams, gave her large doses of chloral and bromide of potash, but the convulsions continued to occur. He then kept her under the influence of chloroform until about 7 o'clock in the evening; as soon as the chloroform was withheld, a convulsion would occur. Thinking that labor would have to be brought on, he sent me a note to that effect and requested me to deliver her.

We found the cervix slightly dilated (sufficient to allow the passage of the index finger). Her husband consented so unwillingly to forced delivery that we concluded to give her 3ss. of fl. ext. jaborandi every half-hour, and to wait two hours for the result, continuing the chloroform also, if necessary. After the second dose of the jaborandi, profuse sweating and salivation took place and the convulsions ceased. Small doses of the medicine were continued during the next two days. She now went on without further trouble until the 28th of March or nearly to the eighth month, when the convulsions again occurred even more violently than before. The jaborandi was again resorted to; but this time, although it produced its physiological effects, yet such intense depression, with nausea and vomiting, occurred, that her condition became alarming; the convulsions ceased for a time only, and we had no other alternative but to deliver her at once. The cervix was dilated about the same as at the seventh month. I dilated it sufficiently with my fingers to allow the blade of the forceps to pass, and then ruptured the membranes and applied the forceps at the superior strait; they were locked with difficulty, and slipped off when traction was made. I removed them and flexed the head, and then re-applied them. They now locked without difficulty and the child was soon delivered, and, although somewhat asphyxiated, it soon recovered and lived. The urine was albuminous during both attacks of eclampsia. It will be noticed that the administration of the jaborandi in this case had no oxytocic or ecboic action, and in this respect it differs from the recent experiments reported by Saenger (Leipsic), "upon the influence of pilocarpin upon uterine fiber."

CASE 2. Annie F. (colored), aged about thirty-seven, married, but sterile, on January 15, 1879, was seized with convulsions

due to the pressure from a large fibroid tumor of the uterus ; 1-5 gr. of pilocarpin was administered hypodermically and the convulsions ceased in about five minutes. She took afterward an infusion of jaborandi leaves, 3ii, to Oi, a wine-glassful three times daily for two days and had no return. This patient had convulsions about three years ago from the same cause, when I treated her with chloral, bromide potash, hypodermic injections of morphia and inhalation of chloroform, and then they continued nearly two weeks.

This patient is also interesting on account of being the subject of a recurrent fibroid tumor of the uterus.

In the report of the Section on Gynæcology in the Transactions of the Medical and Chirurgical Faculty of Maryland for 1875, Dr. Howard says : "In October, 1872, I saw, in consultation with Dr. W. H. Curry, a colored woman, apparently about thirty-five years of age, whose uterus was enlarged by an intra-mural myo-fibroid to the size of a foetal head, chiefly developed in its anterior wall. It had so interfered with the functions of the bladder and rectum, that she had been compelled to relinquish her place as a servant, and was most of the time confined to her bed. Under the hypodermic use of 30 grs. of ergot, in the form of fluid extract, given two or three times a week by Dr. Curry, the tumor diminished so much in size in about two months, and the distressing symptoms abated so greatly, that she returned to her place."

For nearly a year after this, she said she thought the tumor was entirely gone, but then it returned and became as large as before. In April, 1875, she came under my care, and then her abdomen was as large as a woman seven or eight months advanced in pregnancy. Under treatment, the tumor broke down and was passed away in small pieces, and she was perfectly well for more than a year. The case was reported by me in the *American Journal of Obstetrics* in January, 1877.

At this time, the tumor fills the whole pelvic cavity and extends on the right side nearly to the crest of the ilium. The whole uterus and its appendages have degenerated into a large, irregular fibroid mass.

CASE 3. G. A., boy aged three years, was seized with convulsions on January 28, 1879, without any assignable cause. He had been put in a hot mustard bath, and had an enema and an emetic before I saw him; chloroform only checked the convulsions while he was under the influence of it. I gave him 1-20 gr. of pilocarpin, and repeated it in fifteen minutes, after which the convulsions entirely ceased.

CASE 4. Mrs. Mary G., married, had one child about five years ago; was in labor three days, and was finally delivered with forceps; has never had her courses since, but suffers with intense headache and backache every month, and has had convulsions every summer since, lasting from six to ten days.

On June 26, 1879, I saw her about an hour after the convulsions commenced, and gave her 1-5 gr. pilocarpin hypodermically, and repeated it in twenty minutes; she had one convulsion in the night; in the morning, I gave her the infusion of jaborandi 3ii , to Oi , 3i , every three hours; she had no more trouble.

In this case, the uterus is retroverted, and is separated from the vagina by a mass of cicatricial tissue. There is a small fistulous opening in the upper part of the vagina, through which a fine probe can pass into the peritoneal cavity some five or six inches, and the point can be felt through the abdominal walls above the umbilicus. The vagina is about $2\frac{1}{2}$ inches in length, and there is no appearance of any opening leading toward the uterus. She was operated on, at one of the hospitals, for the establishment of the cervical canal, but the result was not successful, and she is unwilling to submit to another operation.

Her injury was no doubt caused by sloughing of the cervix in consequence of continued pressure during her prolonged labor.

CASE 5. August 19, 1879, Mr. B. H., clerk, age about thirty-five, fell in a fit while at his desk, and was taken home. His physician saw him, and gave him bromide of potash and had a blister put on the back of his neck. The convulsions became so alarming that his employer, not being able to find his physician, requested me to see him. Not being able to

quiet him in any other way, I gave him two hypodermic injections of pilocarpin, $\frac{1}{2}$ grain each. He soon began to sweat profusely and the convulsions ceased, and, as I learned afterward, he had no more, although he is aphasic and has been unable to attend to his business since.

CASE 6. August 19, 1879, Mr. G. had intermittent fever, quotidian ague; saw him the first day after the chill was over: gave him quinine; the next day, the chill came on at the same hour; I saw him about fifteen minutes after it commenced, and, as I had read, a few days previously, an article by Dr. Caspar Griswold, house physician to Bellevue Hospital, in the *New York Medical Record*, August 16, 1879, in regard to the treatment of intermittent fever with pilocarpin, I immediately gave him a hypodermic injection of $\frac{1}{2}$ of a grain. The chill ceased in a few minutes, and he had no return, although he took no more quinine.

We have reason to believe that a chill is a modified convulsive seizure, and we know that many of the diseases of adults that are ushered in with a chill, are, in children, preceded by convulsions, and no chill or cold stage takes place.

The physiological action of jaborandi and pilocarpin, according to the researches and experiments of the best observers, such as Curschmann (Berlin), Mueller (Berne), Saenger (Leipsic), Schauta (of Vienna), Ringer, Gubler, Bartholow and others, may be stated to be: In from five to ten minutes after the medicine is swallowed, it produces a diffused glow over the whole body, commencing with the face, ears and neck. This is immediately followed by a profuse perspiration and by a copious salivation; the temperature falls from 1° to 2° F. Some drowsiness is apt to occur, which seems to be owing to exhaustion rather than to any narcotic property of the drug. Vomiting frequently occurs, but is due in part to the irritation of the medicine when given by the stomach, but in part also to the large amount of saliva swallowed. The usual promoters of diaphoresis are quite unnecessary when this medicine has been given. By Stille and Maish it is stated "to be the only direct and essential diaphoretic of the *materia medica*." During the sweating and salivation, the quantity of urine

excreted is diminished, and nearly all observers agree than it contains less than the normal proportion of urea.

Sphygmographic observations denote a dilatation and diminished tension of the whole vascular system during the action of jaborandi. Instead of diminishing the secretion of milk, as might be expected from its causing such profuse discharges elsewhere, it appears to be a true galactagogue.

The effects of jaborandi on children are much less, for corresponding doses, than on adults. In this respect, it resembles atropia, but it is antagonistic to atropia in its action upon the salivary suboral and mammary secretions.

Pilocarpin, when administered hypodermically in doses of $\frac{1}{4}$ of a grain, gives rise to effects almost identical with jaborandi taken internally; but it acts more promptly and more certainly, and vomiting is less likely to occur.

In regard to the influence of pilocarpin on uterine fiber, it has a qualified oxytocic action—that is, if a tendency to expulsion be already present, then pilocarpin is an ecboic (Saenger); during labor, it produces rhythmical contractions of the uterus.

In the latter stages of eclampsia, when coma has suppressed the action of the reflex centers, there is sometimes danger of suffocation from the patient being unable to expectorate the enormous quantity of mucus and saliva that are secreted from the action of the drug.

Winkel states that the condition of the brain, as revealed at the autopsies of those dying of puerperal eclampsia, is that of extreme anæmia, with more or less marked oedema and obliteration of the convolutions, and he agrees with Traube and Munk that this is caused by an increase in the quantity of serum in the blood and by tension of the arterial system, and if this be so, we have in pilocarpin the most effectual remedy.
—*Maryland Medical Journal*.

Remarkable Menstruation.

Dr. Rodsewitch relates the following curious history: The widow of a peasant in the Province of Nijvi-Novgorod, menstruated for the first time at the age of thirty-six. She was

married in her 15th year, without ever having menstruated. From that time, and throughout all the years of her married life, she was continually either pregnant or nursing, and never saw her monthly periods. Her husband died when she was thirty-six years old, and her courses soon after appeared, and continued with great regularity. She had twins at the second, fourth and eighth confinement, so that she bore sixteen children in all.—*Canada Med. and Surg. Jour.*

On the Relative Action of Duboisia and Atropia.

BY SYDNEY RINGER, M. D., PROFESSOR OF MEDICINE AT UNIVERSITY COLLEGE, LONDON.

Since Mr. Tweedy first brought Duboisia myoropoides to the attention of the profession in England, the alkaloid has been largely used as a topical application to the eye, in a solution corresponding to the officinal preparation of sulphate of atropia, namely, 1 grain in 120 minims. This application has caused many unpleasant symptoms. In one case under my care, the duboisia caused much weakness, depression and giddiness; he felt as if he were drunk. Another patient said it causes "great discomfort in my stomach, and a feeling as if a huge lump was in my throat. My power of distinguishing one article of food from another by the taste is taken away." In this patient, it also caused great giddiness.

These accounts led me to test, with the assistance of Mr. W. H. Neale, the relative action of sulphate of atropia and sulphate of duboisia.

We first administered by the mouth a dose of sulphate of duboisia, and carefully noted the symptoms, and we then, on a subsequent day, gave a corresponding dose of sulphate of atropia.

On one occasion we gave two doses of $\frac{1}{120}$ grain of sulphate of atropia at an interval of two hours. On five occasions we gave $\frac{1}{120}$ grain.

Duboisia, we find, produces identically the same symptoms as atropia, but is far more powerful than atropia.

After duboisia, the symptoms begin in about half an hour, and reach their height in about two hours. The earliest symptom is dryness of the mouth.

After $\frac{1}{10}$ grain, there occurred great dryness of the mouth; dilatation of the pupils; much giddiness, almost preventing walking, and increased by exercise; slight drowsiness and rambling; great weakness, so that the limbs felt heavy and were raised obviously with considerable difficulty, with so much difficulty, indeed, that the woman could scarcely feed herself, and her grasp was very weak. It produced flushing of the face, and, on one occasion, patchy erythematous redness, the skin at these places being rather swollen and hard. The pulse became much fuller and rather slower. These symptoms lasted about seven or eight hours.

The same dose of sulphate of atropia only produced slight subjective dryness of the mouth.

After the administration of $\frac{1}{80}$ grain in two doses, with two hours interval, we observed the same symptoms for the most part. The man became very drowsy and delirious; his delirium was of the busy kind, he incessantly tried to pick up imaginary things from the floor. He had also decided twitchings of his limbs, and his pulse rose from 84 to 120, and his respirations from 18 to 30 per minute. The symptoms left him in about ten hours. The $\frac{1}{80}$ grain of atropia, on a subsequent day, only caused subjective dryness of his mouth.

These observations confirm my previous observations, published in the *Lancet* for 1878. I then found that duboisia, in addition to the symptoms above detailed, causes headache, checks perspiration, antagonizes the action of muscarin on the heart, and produces late tetanus in frogs—effects it possesses in common with atropia.

Duboisia, then, possesses the same properties as atropia, but is far more powerful than atropia. Mr. Tweedy found this to be the case in regard to the local application to the eye. But whilst duboisia is far more powerful than atropia on man, the reverse is the case in respect to frogs.

I injected hypodermically $\frac{1}{8}$ grain of sulphate of duboisia under the skin of a frog weighing 21 grammes. In 25 minutes the frog was a little weak; this weakness progressed, but was always far from complete, and disappeared entirely in five hours. Throughout the experiment the heart beat well at 48.

The same dose of sulphate of atropia given to a frog weighing 19 grammes caused complete paralysis in 25 minutes, persisting more than eight hours. The heart fell to 24 per minute, and became very weak, and breathing was arrested.

In another frog, weighing 22 grammes, we gave $\frac{1}{8}$ grain of sulphate of duboisia. In an hour the frog was so weak it could only just crawl. It recovered completely in three hours. The heart beat strongly throughout the experiment at 36 per minute, and the breathing never ceased.

We gave the same dose of sulphate of atropia to a frog of the same weight. In an hour the frog was completely paralyzed, and nine hours afterward the animal could not crawl. In 24 hours it had recovered, but was slightly tetanic. The heart fell to 20, and became weak, and the breathing ceased.

Atropia, therefore, paralyzes far more powerfully the motor nervous system, the heart and respirations, in frogs, than duboisia.—*The Practitioner*.

Coto-Bark in the Diarrhoea of Phthisis

BY J. BURNEY YEO, M. D.

It is now more than two years ago that my friend Dr. Frank, of Cannes, suggested to me the use of coto-bark in the treatment of the graver forms of diarrhoea which occur in the course of phthisis. Whatever difference of opinion may exist as to the desirability of attempting to arrest the less severe forms of diarrhoea, which we encounter in early phthisis, no one can doubt the value of a remedy which will help us to control the grave and exhausting attacks of diarrhoea which occur in its more advanced stages. I am persuaded that we possess such a remedy in coto-bark, and I express this opinion with all the more confidence because it has not been arrived at hastily, but represents the observation and experience of more than two years.

During this period, I have given it in many cases of apparently uncontrollable diarrhoea, that is to say, cases of diarrhoea which were not controlled by the ordinary remedies, such, for example, as opium, bismuth, tannin, ipecacuanha, etc., and I

have found it almost invariably have the effect of arresting the intestinal flux, and of relieving intestinal pain and irritation in a very short time. I say "almost" invariably, for, when I first gave it, I found no such good result; and, on inquiry, I found that one of my colleagues had employed it also without effect. This led me to consider the mode of its administration. I found my colleague had given it mixed with other substances and made into pills, and I had given it, in the first cases in which I tried it, blended with the *Mistura Cretæ* of the *Pharmacopœia*. It is deserving of notice that when given in both these forms it appeared inert; and one might have been induced to hastily discard it as a drug without remedial value. This is probably the fate of many valuable medicines which appear to fail; not from want of virtue in themselves, but from want of patience and attention in their mode of administration.

Finding that the fluid extract contained a resinous element which was precipitated in tough masses when the extract was carelessly mixed with water, I had the following mixture carefully prepared:

Fluid extract of coto, 60 minims.

Compound tincture of cardamomi, 60 minims.

Mix these together and triturate them slowly with mucilage of acacia, 3 drams. and simple syrup, 2 drams.

Finally, add water to 6 ounces.

A tablespoonful of this mixture is a dose. In this form it is an opaque mixture, with a not unpleasantly warm and aromatic taste. I have usually found two or three doses of this mixture arrest or check the severest forms of phthisical diarrhoea.

The bark is imported from Bolivia, in South America, and the preparation I have used is the fluid extract prepared by Ferris & Co., of Bristol. The dose is from 5 to 8 minims. An alkaloid *cotoïn* has been prepared from the bark, and is reported to have the same valuable properties as the extract of the bark itself, but of that I have no personal knowledge.

I may add that I suggested its use in a case of exhaustive and uncontrollable diarrhoea in one of the graver forms of exophthalmic goiter, which I saw in consultation with my

friend Dr. Channing Pearse, of Brixton; and he has informed me that it not only arrested the diarrhoea, but appeared to have a remarkable influence in allaying the distressing nervous phenomena associated with the case. I am quite sure that coto-bark is a valuable remedy which ought rapidly to come into general use.—*The Practitioner*.

Quinia and Amyl Nitrate in Pertussis.

Dr. F. D. Emack, of Trackville, Penn. (in *Trans. Med. Soc. Penn.*, 1879), says that during the summer of 1877, his attention was attracted to an article by Dr. George Bayles, of New York, in a Southern journal (*Va. Med. Monthly*, August, 1877), commending the use of amyl nitrate in conjunction with quinia in the treatment of pertussis. During the epidemic just ended Dr. Emack had used all the old palliatives, such as belladonna, hydrocyanic acid, nitrate of silver, chloral, the bromides in conjunction with expectorants, etc., without doing any perceptible good in curing the disease. Since seeing Dr. Bayles' article, he has had eight cases of whooping-cough in which he has used the amyl and quinia, and the results "prove, beyond the shadow of a doubt, the great merit of Dr. Bayles' method." He did not, in any of the eight cases, commence the treatment until the characteristic inspiratory whoop was thoroughly developed as to render a mistake in diagnosis impossible. When his directions were thoroughly complied with, the disease was invariably cured within a week, but in two of the cases, where vigilance was too early relaxed, the cough continued for nearly two weeks. Further, in none of the cases so treated, was there, after the early use of the amyl, any of the usual complications, such as bronchitis, pneumonia, and cerebral convulsions, which hitherto have rendered the disease, in a large proportion of cases, fatal. He believes, Dr. Bayles, that "in quinia there appears to be a real antispasmodic action to the specific, root-element of the disease—whatever that may be." And he holds that the amyl nitrate "is eminently a relaxer of spasm in all involuntary muscular fibres, and that through its influence over the vaso-motor system

allaying the arterial tension and in producing peripheral deviation, it relieves any and all cerebral and spinal congestion, and thus controls the paroxysmal habit. Indeed, I consider the nitrate of amyl no less a specific in the treatment of pertussis than are the alkalies in rheumatism, or quinia in malarial fever."

The doses of quinia should be proportioned to the age of the patient, every two or three hours, and to deprive it of its exceedingly bitter taste, it may be combined with a grain or two of tannic acid, using simple elixir as a vehicle. The amyl is best administered by dropping one to four drops in a teacup, and as each whooping spell approaches, let the child inhale it. The paroxysm is broken as if by magic.—*Medical Monthly*.

Russian Gargle.

Carbolic acid and tannic acid, each fifteen parts; alcohol, sixty parts; distilled water, one hundred and twenty parts. A teaspoonful of this is added to half a pint of water in order form the gargle. This solution is largely employed in Russia at the commencement of angina and in chronic inflammations of the throat.—*L'Union Med.*; *Med. Times and Gazette*.

Chronic Rheumatism.

I give the following as the treatment from which I have obtained the best results in chronic rheumatism:

R Macrotin.....40 grains.

Pulv. guaiacum 13.

M. Fill capsules No. XII. Sig. Take one capsule every four hours.

Keep the part wrapped in a cloth wet with a solution of acetate of potassium, one-half drachm to the ounce of water.

In addition to the above, and, in my opinion, the most important of all measures where its use is practicable, pass a strong electric current through the part for at least an hour, every day or two. I have used the "alkaline course" usually prescribed, and, in fact, a large proportion of the one hundred

and one agents mentioned in the National Dispensatory as useful in such cases, and have met with the best success with the course prescribed.—*Finley Ellingwood, M. D., in the Medical Brief.*

Codeia as a Sedative.

In phthisis, it allays cough without disturbing the digestive system, and, in the other class of cases, I have found it tolerated when opium and morphia were not. As an instance of the latter, I may quote the case of a medical friend, a member of a gouty family, a frequent sufferer from migraine and derangement of the liver, and well aware of his intolerance of preparations of opium. He complained of a troublesome cough, depending on slight catarrh of the trachea and bronchi, and, at my suggestion, tried codeia, with all the benefit and none of the ill effects of opium. I prescribe the drug in doses of a grain, dissolved in syrup of tolu. The French medical papers constantly contain advertisements of codeia syrup, and probably it is well known as a cough tincture in this country; but I was not aware, and others may have been ignorant as I was, that it has those advantages over the preparations of opium and its other alkaloids. (Dr. R. Saundby).—*Braithwaite's Retrospect.*

Review in Gynæcology and Obstetrics.—The Operation for Stone in the Female Bladder.

BY B. F. LEONARD, M. D.

Simon, of Heidelberg (*Volkmann's Salung Klin. Vorträge, No. 88, 1875*), has made the dilatation of the female urethra a scientific proceeding. In women over twenty years of age, the urethra can be dilated to two centimeters ($\frac{3}{4}$ in.), in women between fifteen and twenty, to 1.8 centimeters ($\frac{11}{16}$ in.), and between five and eleven years of age, to 1.5 centimeters ($\frac{5}{8}$ in.). These measurements can be exceeded by two to three millimeters ($\frac{1}{8}$ in.). In no case does incontinence of urine result. Simon's statements have been verified by general experience.

As a man's index finger is about $\frac{3}{4}$ inch (1.8 centimeters) in diameter, and the little finger about $\frac{5}{8}$ inch (1.5 centimeters),

we can dilate the adult female urethra to admit the index, and a child's urethra to admit the little finger.

Cutting for stone will be used in future only in those rare instances where the calculus is of great size, or so hard as to preclude crushing.

Dr. Ogston (*Ed. Med. J.*, July, 1879), advises a modification of Simon's method. He uses three notches, instead of four, in the meatus, $\frac{1}{8}$ inch deep, one below at the vaginal side, the others equidistant above. Then he proceeds as usual with Simon's specula, advancing in the dilatation by gradual numbers. He narrates cases to show that when the limits of dilatation marked out by Simon are exceeded, incontinence results. —*Medical Journal*.

To Remove Plaster of Paris from the Hands.

A very effectual way of removing Plaster of Paris from the hands is mentioned by a correspondent of the *Boston Medical and Surgical Journal* as being employed in St. Thomas Hospital. It consists merely in the use of white of egg instead of soap in washing the hands. The fact will interest those who have much to do with plaster dressings.

Nitrite of Amyl as an Antidote for Chloral.

The nitrite of amyl was recommended as an antidote for chloral by Dr. Coghill some time ago. A case illustrating its value for this purpose has been reported by Dr. James McCullough, in the *Canada Lancet*. He was called to see an old lady one night, and found her pale, insensible and almost pulseless. She had been taking chloral regularly as prescribed to her by a physician; but had, by accident or otherwise, taken an extremely large dose. Five drops of amyl were given her by inhalation; in a few minutes the extreme pallor gave place to a healthy glow, the respiration became deep and the pulse fuller. She did not, however, regain consciousness, and in two hours became weak again.

The amyl was repeated, with the same beneficial result. After this, with the help of brandy, she completely recovered.

EDITORIALS.

PATENT MEDICINES.

There has just been placed upon our editorial desk a "patent compound," purporting to be composed in part of substances which are universally used as articles of diet, to which are added *several agents* of well-known value in the domain of therapeutics. This *mass of bottled incongruity* is accompanied with an elaborate circular which, like all others of its kind, purports to give a few of the many thousands of testimonials from leading physicians all over the world. Curiosity leads us to carefully scan these professional effusions or rewards of merit.

Many of these certificates are fine specimens of literary profligacy, prolific of high-sounding adjectives, commending the wonderful virtues of the patent, and exhorting "the profession to make haste and give the wonderful compound a trial. Our eyes follow these comparative and superlative *adjectives* to the end of the paragraph, where we behold the names of the eminent physicians of national reputation, some of whom are known as *professors* in "regular schools." We had thought that the time was forever past in which members of our honorable profession felt obliged to resort to this vulgar method of *advertising themselves*.

All branches of the profession have often expelled members from their local, State and National societies, "for making free with printer's ink," and indulging in bombastic circulars and certificates. Such expulsions are generally wise, and calculated to promote, in an eminent degree, the dignity, honor and well-being of the profession. Now, fellow-practitioners, we ask you, in the name of justice to ourselves as honorable men, and as an imperative duty we owe to the good name and purity of our profession, to clasp hands with a firm determination to effectually check this *patent certificate outrage*. It must and should be done. The habit which some men have acquired

of lending their names to every "proprietary medicine factory," is becoming entirely too frequent, and decidedly obnoxious; and, in order to cure the habit, it may become necessary to arraign them before the tribunal of a *national association*, where it is confidently hoped they may be compelled to atone to the offended law.

In our medical colleges many teachers strive hard to induce their students to study *therapeutics* with *all* the lights that modern science has given. The periodical literature of the profession often teems with brilliant exhortations to the old doctors to begin a thorough re-study of the *materia medica*, that they may thoroughly comprehend the physiological as well as the therapeutical action of medicines, and thus be prepared to prescribe them with accuracy, and produce positive results. Such teaching can hardly fail to be attended with gratifying results. But alas, what a contrast to such teaching is that sought to be conveyed by the bombastic circular before us! In this the *big doctor* with the "A. M.," "M. D.," and occasionally the "F. R. S." affix, has accomplished such wonders with this nostrum (which contains nearly a dozen ingredients), that he is only too anxious to be allowed the privilege of lending his well-known name to aid the proprietor in his gigantic efforts to inject the nastiness into the favorable consideration of the country practitioner.

SANGUINARINA.

Physicians generally are quite familiar with the official preparations of bloodroot. Indeed, it might appropriately be termed one of the *old* agents of our *materia medica*; but one of its principal constituents, or alkaloids, termed "*sanguinarina*," has not been so generally used as the crude and fluid preparations of the drug. This alkaloid (*sanguinarina*) was first prepared in the year 1828, but has not been very extensively used. When it is quite pure, the alkaloid is in white verrucose or needle-shaped crystals, which are freely soluble in ether and alcohol, and, when combined with acids,

yield bright red salts, having a bitter and persistently acrid taste. Perhaps one of the most valuable of these latter preparations is the nitrate of sanguinarina, which is freely soluble in water and alcohol.

Sanguinarina seems to manifest all the physiological capabilities of the crude drug; has a bitter, acrid taste, which persists for a long time. When swallowed, it leaves a sense of sharp, smarting acidity in the throat, followed by that of constriction. In the stomach, it excites a feeling of heat, and produces a flow of gastric secretions, and a subjective sensation of warmth is felt throughout the system, and it also stimulates secretion (or rather excretion), from the intestinal mucous membrane.

If the quantity administered is small (1-30th or 1-20th of a grain), it simply increases secretion from the gastro-intestinal mucous membrane; but in large doses (1-12th to 1-6th of a grain), it causes nausea, and sometimes vomiting. In diseases of the respiratory organs, sanguinarina is a valuable agent. In chronic bronchitis, where the exudate becomes inspissated, and expectoration difficult, one-twentieth or one-thirtieth of a grain every four hours will afford great relief. Chronic laryngitis, with plethora of the lining membranes of the larynx, and impaired exudation from the mucous follicles, causing a tendency to aphonia, may be much benefited by small and frequently repeated doses of this alkaloid. In such cases, a mild solution may be applied to the affected parts by the atomizer.

This agent will be found one of our best remedies in chronic catarrh.

R	Sanguinarina.....	grs. ii.
	Glycerine	℥ii.
	Aqua Dest. ad.....	℥iv. M.

Apply to the catarrhal surface with post nasal syringe, or with the atomizer, two or three times a day.

These applications may be appropriately alternated with solutions of benzoate of soda in catarrhal affections, where there is much fetor from the nasal secretions.

During the past year, I have extensively used sanguinarina and the nitrate of sanguinarina to disorganize and remove the

laryngeal exudate in diphtheria, in cases where this exudate accumulates in such masses as to almost prevent the passage of air. My method is to apply with camel's hair brush to the pharynx, and, with the atomizer, to apply it to the larynx and trachea. For this purpose, the following solution has been very efficacious :

R Nitrate of sanguinarina.....grs. ii (or grs. iv).
Aqua Dest.....℥iv. M.

Apply sufficiently often to keep the exudate removed. Many persons are lost from diphtheria by the exudate obstructing free passage of air to the lungs, thus preventing oxidation of the blood.

There can be no doubt that sanguinarina promotes hepatic and intestinal secretions, and therefore is a valuable remedy in duodenal catarrh and catarrh of the biliary ducts, which frequently produce jaundice. In functional amenorrhœa, and especially in anæmic subjects, sanguinarina may be combined with ferrum with much advantage.

THE MUSEUM.

We have lately received an interesting and curious contribution to the College Museum from Dr. J. F. Gibbon, of San Francisco. It consists of specimens of Chinese medicines, and is accompanied by a catalogue of the Chinese collection, which was on exhibition at Philadelphia in 1876. Among the curiosities of the collection, we notice pills fully an inch and a quarter in diameter, covered first with gold-leaf and then with wax, which is ornamented with Chinese characters, in gold-leaf. These are marked "For general debility." Another lot, only a trifle smaller, are labeled, "For insomnia ; dose, one at bedtime."

The skins and skeletons of two lizards, artistically joined together by their tails, are considered "specific" in China for loss of appetite ; but as our specimen is without a copyrighted label, we cannot vouch for its therapeutic value.

A large wasps' nest, marked "Good for weak back," and a dried snake's skin, "For itch, piles, fistula and skin diseases," add to the uniqueness of the collection.

A black disc, about two inches in diameter, with a hole in the center, constitutes a "Love-charm, to be worn by females." Another specimen is a strip of bark, used to cure "Debility of the bones."

Besides these already mentioned, the collection embraces roots and herbs, scrapings of deer-horns, asses' glue and some pharmaceutical preparations, concerning the nature of which we are ignorant.

After an inspection of the list, we are led to the conclusion that the Chinese have a strong leaning toward Homœopathy. Let us recapitulate:

For general debility, a pill, the size of which would cause anybody to *weaken*; for insomnia, a pill that would undoubtedly keep a well man awake if he succeeded in swallowing it; for *scaly* and skin diseases, a *snake* skin; for loss of appetite, a pair of lizards, the sight of which would destroy a good appetite; for weak back, a wasp's nest (it is a well-known fact that encountering a wasp's nest takes the backbone all out of a man). Like cures like. "Verily there is nothing new under the sun."

Thanks to Dr. Gibbon.

In this connection we would remind the Alumni and all interested in the College that new cases are being placed in the Museum, and that contributions will be gratefully received and well cared for.

A DONATION TO THE DISPENSARY.

We should have acknowledged last month a valuable donation to the Free Dispensary from William S. Merrill & Co., consisting of tinctures, fluid extracts, alkaloids, etc. We have already seen the good results from these reliable medicines in several cases, and feel sure that further trial can but enhance the high estimation in which we hold them.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[LVIII.]

VALVULAR CARDIAC DISEASES—THEIR DIAGNOSIS AND TREATMENT.

BY S. H. POTTER, M. D.

Excesses of every kind and nature, overtaxing the cardiac powers, are so common that physicians of average practice have, usually, some of these troublesome cases in their care. Hence due attention to cardiac lesions becomes a necessity.

Many people often trouble themselves about having diseases of the heart because they have pains thereabouts. This is a grave error, because pains in the region of the heart are usually favorable signs, showing that the pains are outside of that organ, which is destitute of sensitive nerves. About three hundred pounds of blood is carried through the heart of a man of medium size every hour, while he feels no special impressions from this powerful procedure. It is a well-settled fact that the most certainly fatal diseases of the heart give no note of warning, by pain or otherwise, until the last brief hours of impending death. This is no less true of the lungs. These facts should teach us caution: Not to err in diagnosis and prognosis; not to allow ourselves to be deceived, nor excite undue alarm in the minds of our patients.

Signs of Valvular Disease.—Cases in my practice will illustrate these. Peter Ware, age fifty-seven years, laborer. Family history not important. Has been a robust man. Has not had syphilis, rheumatism nor pulmonary disease. Has been a moderate drinker. Ten years ago he began to suffer, at times, with palpitation and dizziness, and passed blood with his urine. Since then, he has had repeated attacks of hematuria, sometimes passing a good deal of blood, obstructing the free passage of urine. These attacks have been of short duration, and the intervals free of urinary trouble. Three weeks ago, he had a more severe recurrence. His face is anæmic, with some oedema of his feet, legs and face. He has a feeble apex beat of the heart and felt in the fifth intercostal space, just within the *linea mammalis*. There is a mitral systolic murmur, not transmitted much to the left of the apex. A systolic murmur in the base and over the carotids; also, a feeble aortic regurgitant murmur. The aortic second sound is fair, but pulmonary second sound has greater intensity. On percussion, the area of precordial dullness is slightly increased.

Here is evidence of some cardiac enlargement and valvular lesions, both mitral and aortic. I have treated this patient many times for similar attacks within the ten years of their recurrences, only that this last is more severe. He has no hematuria, but true hematuria, because the blood coagulates after its emission; and its chronic character renders the existence of a malignant disease in the bladder impossible.

What has the heart to do with the general condition of the patient or his dropsy? Very little, only he has always "feared heart disease might end his life any time." I have always considered that his periodical loss of blood and febrile were the main causes of his recurring condition as described. It would be a great error to treat such a patient for heart disease, prescribe digitalis, which is done too often, as a matter of course, if there be any cardiac disease. It would also, be a great error to prescribe hydragogues and diuretics to cure the dropsy, which occasions little inconvenience. What I have heretofore supposed, and now more than ever, is the

need to try to build him up. He needs good food, digestion, assimilation and nutrition. Improve his blood and general health, as heretofore, by the usual well-known means, and allay his fear, and his heart disease will not soon prove fatal. This is typical of many cases we meet with. True strength, real recuperation, comes from the digestion and assimilation of nutritious food, and can come from no other source.

Another case in point is Mrs. M. K., age fifty-six years. Is married and has four healthy children. Her parents are dead, from what cause she does not know. Twelve years since, she had articular rheumatism, and another attack about five months ago. Since her last attack, she has suffered from dyspnoea, with cough, slight pain in the precordial region, and a feeling of constriction of the thorax. She has an anæmic appearance. The slightest exertion produces dyspnoea, and she is often obliged to get up at night. The apex beat of the heart is in the sixth intercostal space, two inches outside of the *linea mammalis*. There is considerable precordial dullness, extended and increased in degree. The cardiac impulse is weak. At the apex, there is a presystolic and a systolic murmur, the latter extending into the axilla, and is heard on the back. Also, a systolic murmur at the base, heard over the carotids. The pulmonic is louder than the aortic second sound.

It is plain that we have enlargement of the heart, with mitral and aortic valvular lesions. No general dropsy, but the patient has incurable disease of the heart. She is anæmic and feeble. I have been her physician twenty-five years. Have always aimed to improve her general condition by tonics, good alimentation, etc. In this I have heretofore succeeded, and, in an improved state, she suffers comparatively little from her heart disease. I always tell her: Forget you have a heart. Do not keep troubling yourself about it. In such cases, all and the best we can do is to improve to the utmost the general condition, so as to secure the best possible toleration of a malady which must continue.

The careful study and observation of cardiac murmurs enable us to readily recognize valvular lesions, and locate them

at one or more of the valves or orifices of the heart with most satisfactory precision. These important advantages of precision in physical diagnosis are often embarrassing in prognosis and treatment. When we are obliged to inform a patient that he has structural lesion of one or more of the cardiac valves, whether immediately dangerous or not, the idea that he has heart disease spoils his cherished plans of life, and shrouds his future with fearful forebodings.

Some time previous to my visit to Philadelphia to assist in the first term of the E. Medical College of Pennsylvania, in the spring of 1851, I had had a severe cough, attended with an unpleasant cardiac murmur, which had given me much anxiety. After a clinic in the Pennsylvania Hospital, one day, on cardiac diseases, I visited Prof. Wood, who, after examining my chest, said: "Doctor, your cough is only bronchial, but you have a heart-murmur that may give you much trouble," but he would explain no further. Of course this increased my anxiety. In the spring of 1852, I visited New York and applied to Prof. Mott, who, after a careful examination, assured me that, "although there was a distinct abnormal murmur, there was no other evidence of heart disease." Though these assurances gave me much satisfaction, they did not dispel my apprehensions until my last visit to New York. Prof. Flint, who examined my chest, said: "I find a systolic murmur within a limited area at the apex. The heart is not enlarged; its action is regular. The pulmonic and aortic sounds are normal. I assure you that there is no present cause for anxiety. I advise you to try to forget that you had a cardiac murmur." I adopted his advice, as near as possible, although when excited, or very tired, I feel that old systolic murmur, and extending to the right carotid artery very distinctly. I use my own case to show how embarrassing it is to others to know they have an abnormal heart action. Most physicians are often embarrassed with this class of patients. We learn from this that a cardiac murmur undoubtedly organic, that is, not hemic nor extra-cardiac, may represent a lesion which, for the present, is innocuous, and may never become dangerous.

As a rule, when a patient is told that there is evidence of something wrong in his heart, he has "heart disease." In the popular mind, this always means something grave, and involving liability to sudden death. Now, suppose the physician enjoins extreme care in physical exercise and mental excitement, and advises the relinquishment of the ordinary pursuit of the patient; impressing the importance of inactivity. Great anxiety follows, and the plans and duties of life may be sacrificed to needless precautions. This is no imaginary or isolated case; they are exemplified by frequent occurrences. These evils, in some instances, following the discovery of an organic cardiac murmur, are so great that ignorance of it would have been far better.

How can we avoid such untoward results? There are wholesome medical maxims in point. "Positive, proximate evils are not to be incurred in view of remote, doubtful contingencies. A patient is always entitled to a prognosis as encouraging as is consistent with the most hopeful aspect of the case." We should doctor the mind more and the body less in a majority of cases of adult age.

(To be continued.)

[LIX.]

CAN WE EXPLAIN INTESTINAL ABSORPTION BY PHYSICAL LAWS?

PROF. E. M. READING.

As the science of physiology has been gradually unfolded in centuries past, there has been a tendency to depart from those mystic theories of some spiritual influence to control vital action. But physiologists have, at times, gone to the other extreme, and have attempted to explain life by simple physical laws, either chemical or mechanical. Descartes, with his theories of ferments, of acidity, alkalinity and effervescence of humors, ought perhaps to be regarded, more than any other, as the founder of these latter views; while that natural mathematician, Boerhaave, simply substituted, a century later, his own mechanical views for the chemical theories of Descartes.

As an outgrowth of such minds as these, we are taught, for instance, that the stomach is simply a room where a kind of laboratory practice is carried on, or a mill where the contents are triturated to a proper degree of fineness, and digestion is accomplished by laws entirely analogous to those governing inert matter. But now comes Dr. Beaumont, who demonstrates, by actual observation through a fistulous opening into the stomach of one St. Martin, the existence of a secretion from the mucous membrane of this organ, which secretion possesses peculiar solvent properties. We are then forced to believe in the stomach as a digestive organ, *per se*—not simply as a hole or cavity, where this process can be carried on. Thus falls, *per force*, one of the highest monuments of chemical or mechanical physiology.

Again, the circulation of the blood having been discovered and finally accepted by all as a fact, our brothers of the last century, of a mechanical turn of mind, conceived the happy thought that the heart, with the tubes attached, leading to and from it, was nothing more than a hydraulic ram of peculiar construction. The force of the heart's action was estimated on this basis, and many fine calculations were afforded the mathematician who accepted these views. But now comes Haller, who demonstrates not only that the heart possesses an inherent power of contraction, but even that a small portion of the heart, cut away from and deprived of connection with the body, possesses this same property, thus doing away with the idea that gravitation is ultimately the cause of circulation. Another prop was thus taken from underneath our mechanical physiology. Just so have other mechanical theories served their purpose and become obsolete, as the friction of molecules causing animal heat; the secreting structures acting as organic sieves of greater or less fineness, and thus causing the difference in secretions.

Now, far be it from me to deny the influence of physical laws in the organism. To claim that the law of gravitation, the laws of hydrostatics, the influence of chemical affinity, etc., play no part in the animal economy, would be as absurd as to claim, with the ancients, that every process in the body

was presided over by a divinity, whose especial care it was to see that such process was carried on, right or wrong, as suited his pleasure. But I apprehend that there still remain in the minds of some physiologists of the present day, at the expense of truth, some relics of the mechanical school of the last century. Such a conclusion naturally suggests itself, at least, upon a perusal of our popular text-books.

When osmotic action, or the passage of liquids through membranes, was discovered and its laws elaborated in the last century; it was, no doubt, through the influence of this mechanical school that the process of absorption was explained by osmosis. This discovery consisted simply in the observation of the fact that if a membranous septum separate two liquids of different properties, there will, under proper conditions, take place a current from one liquid to the other, directly through the membrane, even though no interstices in its structure are demonstrable. In the intestines we have a membranous wall separating their contents, which are rendered fluid by digestion, from the circulating fluids of the body, the lymph or chyle, and the blood. From this it was easy to draw the inference that absorption of the digested material was simply a process of osmosis. This view seems to be the one popularly held at the present day, modified, it is true, as our science has progressed and rendered it impossible to maintain the conclusions first drawn. There are certainly many analogous points between osmosis and intestinal absorption. Many conditions which favor osmosis seem to exert the same influence on absorption. The main laws upon which osmosis depends, namely, the capability of the liquids to wet the membrane and to mix with each other, are fulfilled by the liquids separated by the intestinal walls. A great extent and thinness of the separating membrane are conditions favorable to extensive osmotic action, and these conditions also exist in the intestinal canal. In other ways also does absorption resemble osmosis. But it must be remembered that the real nature of both of these processes is entirely unknown. We know that in both cases the liquid gets through the intervening septum; but how it does it, we

know not. To assume, then, unconditionally, the identity of these processes simply from resemblances, when we know nothing of their real nature, is unscientific and misleading.

While there exist resemblances between these processes, there also exist radical peculiarities in intestinal absorption which, to my mind, can never be wholly reconciled to the laws of osmosis. One of these peculiarities is the following: It is a general law of osmosis that the current will take place through the membrane toward the denser liquid from that which is less dense, and the rapidity of the current is proportional to the difference in density. There are exceptions, it is true; but the exceptions play no part in the point we are about to make. Now, it is a known fact that saccharine and saline solutions in the intestinal canal are taken up by the blood-vessels without any apparent regard to their density. These solutions may even be more dense than the blood, and still the current in the living body is toward the vessels from the intestines. If we were to dissect away a portion of intestinal mucous membrane and use it outside the body as a septum, and place on one side of it our saccharine or saline solution, and on the other the blood, as nearly as possible in a physiological condition, we should find that then the current takes place from the blood to the solution, in accordance with osmotic laws, or, in other words, in direct opposition to the ordinary current of physiological absorption in the living body. This has never been satisfactorily explained by the adherents of the mechanical idea, and, until it is, it must go to show that in the body there exists some influence above and beyond that which is explained by common physical laws.

The mechanism of the absorption of fats has been for a long time an undecided question. The alimentary mass is rendered soluble, as a rule, by the digestive fluids, and, being held in solution, it is maintained that it obeys osmotic laws. But in the case of fats, the solvent properties of the digestive fluids do not act, and the fat is simply emulsified or divided into minute granules. These granules are not so fine but they

can be readily seen by the microscope. Now, according to the laws of osmosis, all solid substances, to pass through membranes, must be in absolute solution. The question of the manner of the absorption of fats has, therefore, long been a matter of discussion. Although it has lately been discovered that emulsions of fat may, under proper conditions, be made to obey osmotic laws as completely as any liquid, and although there is nothing in reality any more peculiar in regard to the absorption of fats than of any other kind of digested material, still the investigations and experiments which have resulted from this discussion have been by no means unfruitful.

It is now universally admitted that absorption takes place through the intestinal mucous membrane and capillary walls into the capillaries of the blood-vessels and lymphatic system which are here called lacteals. If we examine microscopically the inner surface of the intestinal wall, we shall see that it abounds in minute elevations called villi. These villi are not homogeneous in their structure, but are coated on their exterior or free surface by a layer of epithelial cells. Underneath the epithelial lining the villi are composed of other cells interwoven between the meshes of the capillary network into which the digested material goes. With these points of the absorbing structure in mind, it is easy to see that the products of digestion must first pass through the epithelial lining of the villi, through the underlying cells, and, finally, through the capillary walls. The existence of cells in the latter has been denied, but, of late, some observers have assumed to demonstrate them. Thus, in absorption, we have to do with a truly cellular structure. Although we know little concerning the true nature of cells, still we know that they possess properties and functions in the body which distinguish them completely from unanimated matter. They appear to be little animated individuals, possessing life, reproduction and death, and—more important to us—a certain selecting power which enables them to take up from surrounding media that which they appear to choose, and to reject that which they do not. Why is it that the muscle-cell or the nerve-cell selects those

materials which go to make up muscles or nerves? Why is it that the blood-cell selects for itself phosphates and potash compounds and rejects salts of soda, although it floats in a liquid rich in the latter? We cannot explain cell-action, but it is useless to deny it. If, then, we are forced to admit this selecting power of the cell, why may we not apply it to the process of absorption? Indeed, the little granules of fat, which have given rise to so much discussion, have been repeatedly seen directly within the cells of the villi, and, while this portion of the digested mass is visible as granules, there is no reason to deny that other portions are taken up and transmitted in the same way. If we take a piece of intestinal membrane directly from a living body, and place upon it a drop of the contents of the stomach or bowels during digestion, the epithelium will rise up as if awakened to the performance of new duty. It is stated that the epithelial lining at such a time constitutes four-fifths of the whole bulk of the villus.

Then, again, by this view, we are not puzzled at the fact that digested fat is mostly absorbed by lacteals, while other digested materials go mainly to blood-vessels. That the intestinal cells should transmit digested materials to their proper destinations is in exact accordance with the selecting and rejecting power of cells elsewhere, and such a discrimination between the route taken by fats toward the lacteals and the route of other materials toward the blood-vessels has never been explained by osmosis.

It is not the design of this article to substitute something lofty and mysterious for that which is simple and plain when we invoke the aid of cell-action in absorption. For, although osmosis is much more easily demonstrable and much more common to our every-day observation, still it must be borne in mind that we know as little about the true essence of one action as we do of the other, and there is something so palpably wanting in the osmotic theory of absorption that physiology of the future will be forced to seek a new explanation. That this will consist in an elaboration of our knowledge of cell-action there is little doubt.

[LX.]

SUGGESTIONS IN REGARD TO THE MANAGEMENT OF HERPES.

BY J. T. KENT, M. D., ST. LOUIS.

Without attempting to discuss all the varieties of this vesicular disease and its present classification, I desire to point out some clinical facts, with the management that has resulted highly satisfactory in my hands. Also, in view of errors that seem not uncommon with young practitioners, does the subject seem important. The special variety that seems the most neglected, is that which attacks the genitalia of both male and female, viz., *herpes præputialis* and *herpes pudendalis*. The cause may exist in the course of the nerve, or in the nerve-centers of the nerve supplying the tissue upon which the vesicles appear, or the cause may be reflex irritation. The eruption is likely to recur in proportion as the cause is permanent or transitory.

Nothing new is claimed in the inference that all herpetic vesicles are of a nervous origin, and the manifestation of the different species of this class of skin affections are too well known to demand from me any extended description. The *herpes labialis* is, perhaps, the most common form of the herpetic eruption, and is typical of the genus in whatever species it may be observed. The herpetic eruption of the genitalia has no essential difference in the picture from the cold sore, or *herpes labialis*. The one appears upon the genitals, the other upon the lip; the former is of great importance, as it must be differentiated from chancre; the latter is of little import. The herpetic vesicle of the genitalia needs little treatment, but a chancre may be of grave importance; not that it is a difficult matter to diagnose the one from the other, in their primary form, but how often does the young man present his penis for treatment or inspection, with a sore upon the prepuce that has been cauterized with silver or other caustics, and it will defy the most skilled as to differentiation. An accurate history of the vesicular or non-vesicular aspect of the first appearance is often impossible. We may know that regular vesicles clustered upon an inflamed base is characteristic of herpes, but the

caustic may have destroyed this before the physician has seen the patient, and the patient's history on this point is of little value.

Not long since, a case presented to me for treatment; he was a middle-aged man who had been pronounced syphilitic by charlatans, but physicians had invariably told him the truth, and he had visited a large number. He occasionally would observe a small vesicular eruption upon his prepuce. This had been thus from the beginning, and he had never suffered with anything farther. He would not believe any of the physicians who simply told him the truth; such cases are numerous. The Hot Springs of Arkansas are crowded with cases that never were syphilitic, and the mountebanks of that valley feast on the fat fees obtained by their rascally deception. Quacks are not found in Hot Springs only, and the "regular" deception is not by any means small in this kind of disease. The opportunity for deception is enormous.

A gentleman is much more alarmed at seeing a vesicle upon his prepuce than upon his great toe, even though he had remained continent a long period. The fact may better be brought to view by observing how much deeper a gentleman will go into his pocket for relief from a preputial pustule than for one located upon the phalangeal extremities. He will trust to nature to cure the latter, but the former he presents to the surgeon. The virile member is guarded with specific scrutiny, and the physician's expressions are watched for a ray of hope that the ulcer or pustule is not syphilitic.

It is the younger class of physicians, many of whom have not had access to our special modern authors of diseases of the skin, that I would warn, in managing the apparently simple yet, symptomatically, very important index, to chronic disease. The herpes zoster is not likely to confuse the physician in diagnosis, and demands but a simple treatment.

The herpetic eruption is generally of small importance *per se*, but the cause may be of decided import, and is often masked. Dermatologists are principally agreed that the cause exists in the course of some nerve.

When a case presents, we must determine whether the cause is centric or reflex if we expect to direct a rational treatment. A few cases may be of interest, and I thereby may show how these reflex irritations (causes) bring about such peculiar results.

Mrs. B. called my attention to an herpatic eruption encircling her thorax. Her menses had not appeared in due time; she had taken cold; the face was flushed; pulse accelerated; bowels were constipated; great pain in the right side; skin over the thorax was hyperæsthetic; pain in the back and head, followed the next day by the crop of vesicles in patches increasing in number until nearly confluent. The pain was, to a great extent, in the course of nerves radiating from the cord. The pain abated very much after the completion of the eruption. In the above case, we naturally think of the following questions: Was the suppression the cause of the centric irritation? or, did the cold, through centric irritation, cause suppression? Was the eruption not a vicarious menstruation? Was the cause of the herpes zoster centric (in the cord), or reflex (in the uterus)? We answer, that cold or shock to the trophic centers, arrested the natural flow of vegetative force in proper tracks, and a deflection to the nerves of the skin was the result. A vicarious expenditure of nerve-force was the probable cause of the eruption, or a paralysis of the nerve-supply or action upon the cells of the integument.

Mr. X., a case of herpes præputialis, has been under my observation for many years; he has repeated attacks often. He first has pain in the lumbar portion of the cord, often radiating in the sciatic nerve on one or both sides; he has hyperæsthesia of the perineum and scrotum, and sometimes neuralgia of the spermatic cord and testicle; then sharp pains extend along the dorsum of the penis, confined in the skin; the second day, the prepuce becomes very tender to the touch. The skin on the inner side of the thigh is also tender to the touch, and sometimes the seat of lancinating pain. The third day, the eruption appears upon the prepuce, and the hyperæsthesia and neuralgia have disappeared.

This eruption differs from chancre at first sight, in that the bullæ are very small and numerous, and not regular in contour as to surface, and always situated upon an inflamed base, generally eight or ten vesicles clustered in a circular group, and two or three patches may appear at the same time, generally very close together.

If close observation be made, herpes præputialis will be found to be associated with hemorrhoids, indurations of the anus, irritation of the bladder, prostate gland and urethra. It exists in organic stricture and spermatorrhœa. It is a common disease with those who indulge to excess in *Baccho et venere*, for in such cases we often find much genito-urinary trouble. Again, a special variety, which so commonly follows syphilis, hence its name, herpes præputialis syphilitica. From the neuralgia and centric pain, with the hyperæsthesia so commonly present, if the observation be thorough, it seems very rational to conclude that these eruptions may originate from irritations along the course of the nerve going to the part, or by reflex excitation, or in the centric-nervous apparatus.

As the eruption is only a phenomenon, little treatment is necessary, and the cause should at all times be looked after. Permanent relief will depend upon knowing and being able to relieve the cause. The vesicles are a manifestation or expression of diseased conditions elsewhere, and all mischief has been accomplished before we see the expression.

For the variety that appears upon the face, lips and chin, I generally direct a powder bicarbonate of soda or subnitrate of bismuth. When a severe attack of herpes zoster is present, I direct the internal use of iodide of potassium, with the application of glycerole of tar or to powder with bicarbonate of soda. No prophylactic measures are necessary in this form, as a second attack is very uncommon.

The genital variety is exceedingly annoying to both patient and physician. Indeed, I know a number of persons of both sexes who are seldom free from this very troublesome little malady. Where the female suffers from the genital variety of herpes, the eruption is identical in the formation of its group of vesicles, and they may be found upon the labia majora or

mons veneris. The causes are analogous to those of the male. Females who suffer from herpes are generally victims of uterine irritations, dysmenorrhœa, leucorrhœa, caruncles in the urethra, irritation of the kidneys and bladder, etc. The same neuralgic and hyperæsthetic phenomena are present as in the male.

Females, thinking themselves the victims of contagion, often apply for medical aid; and the importance of a perfect understanding will at once appear. The physician's opinion, if unguarded, may cause a disruption in a happy family, and himself no small amount of trouble.

Only partial success is attainable in managing the genital variety of herpes, from the often obscurity of its cause. By success, we mean preventing the recurrence of the disease; hence, removing the causative irritation is a prophylactic measure. A greater degree of success will attend cases resulting from reflex irritations than any other; and as other causes are so varied, scarce any but the former can be considered in the short space of this paper. A barrier arises in not being able to recognize and obviate the causative irritations, when the cause is determined to be in the nerve center, or along the course of the nerve, by exclusion or otherwise, an additional diagnosis is necessary, as the exact condition of the circumscribed cause must be known before a proper treatment can be directed. This condition may be one of anæmia, or hyperæmia, or actual organic disease. A diagnosis, in many cases, is quite impossible at first, but the use of certain agents may aid the physician in his conclusion.

The most troublesome cases that have come under my observation, where the diagnosis as to cause was plain, were those arising from irritation and disease of the prostate gland. As that gland improved, the eruption became less frequent. Not long ago, a gentleman among my patrons was under my observation, often suffering from herpes præputialis. Many times I attempted to prevent a recurrence of the eruption, but did not succeed until I had diminished the size of an enlarged prostate-gland, which a close investigation revealed. Electricity was the agent used in the treatment of this case.

A very similar case of eruption upon the prepuce was relieved, after finding and destroying an indurated tumor of the anus. This tumor was not larger than a half-pea; was not painful only when pressed upon deeply with the fingers. The gentleman was not aware of its presence until my finger made firm pressure upon it. I have observed cases occurring from excoriation of the anus, hemorrhoids, stricture of the urethra, and the eruption to entirely cease upon the relief of those conditions. When the cause returns, the vesicles will be very likely to re-appear. When the eruption appears as a sequela to syphilis, the same scrutinizing investigation should be made for reflex causes. Fibromata and gummata are more likely to appear after a course of syphilis, and indirectly cause the herpes of the prepuce. I generally look, and not in vain, for some irritating condition along the branches of the internal pudic or some branch of the hypogastric plexus.

When a case has gone through with syphilis, it is rational to suspect the cause to be centric, and especially in the absence of reflex causes.

In these cases, I have found nothing better than large doses of iodide of potassium. In the management of all cases, success depends upon finding and removing the cause. When the cause cannot be discovered, it is not reasonable to expect permanent relief.

[LXI.]

[From *Allg. Med. Central Zeitung*, 28th Aug., 1878.]

DUBOISINE.

[TRANSLATED BY JOHN TASCHER, M. D., CHICAGO.]

The attention of the profession has been directed to a new agent, which will, through its sedative and energetic mydriatic properties, bid fair to vie with atropia in its renown as a therapeutical agent, or even take its place. This is the alkaloid of duboisia myoporoides, which is found to exist in one of the species of solanæ growing in the vicinity of Sydney, Brisbane and Cape York, in Australia, also on the Island of New Caledonia. It was introduced at about the same time by

Dr. A. W. Gerrard, in London, and Mr. A. Petit, druggist in Paris, in the form of an aqueous extract, which was obtained from Sydney, and was named, by the last, "duboisine."

Duboisine does not only resemble chemically, but physiologically, the action of atropia. W. Murr, D. D., and Sydney give the following results as obtained by their experiments. It dilates the pupils rapidly and with marked effect. Ten minutes after introducing a solution of duboisine (1:120), there was a marked dilation of the pupils; one-sixth of a grain subcutaneously injected arrested profuse night sweats. In all patients that duboisine was injected subcutaneously, the following symptoms manifested themselves: A peculiar dryness of the pharynx, resembling that produced by atropia. If used in large doses, after several hours, or sometimes days, it produces tetanic spasms. The similarity of action that the two alkaloids have on the pupils and pharynx does not prove that the two alkaloids are identical. There are a well-known number of alkaloids derived from the several species of solanæ, which produce the same physiological effects, but differ in their chemical constituents. Dr. Gerrard is of the opinion that duboisine and atropia are not composed of the same chemical elements, and cites as a proof the difference in their chemical re-action.

1st. The solubility of duboisine in water is twice that of atropia.

2d. It requires more acid to neutralize it.

3d. It will combine with sulphuric acid at a lower temperature, and with bichromate of potash on the application of heat, which is known not to be the case with atropia.

4th. The odor given off by boiling with barium-hydrate differs from that given off by atropia when boiled in connection with it.

The physiological experiments carried on with duboisine at Paris, in Galezowski's and Wecker's clinic, were found in general about the same. Wecker says that duboisine, beyond dispute, is a more active agent than atropia, without compliment to its action as an energetic mydriatic. When introduced into the eye, it paralyzes the muscles of accommodation; to produce

this effect with atropia, a much stronger solution must be used. It may also be used where we would not be justified in using atropia.

Prof. Gubler, M. D., expresses himself as follows in respect to the action of duboisine: "One-half milligramme, subcutaneously injected, will produce dryness of the throat and mouth at the same time dimness of sight; one milligramme produces thirst, dilation of the pupils, a scarlet color of the skin, a general muscular paresis, with inability to use the lower extremities. The action of duboisine is apparently somewhat similar to that of atropia."

The foregoing facts make it desirable that an agent of so marked therapeutic effect should be more thoroughly investigated. Unfortunately, the enormous price of the new alkaloid (40 francs per dos gramm) is in a measure a hindrance to experiments. But it is to be hoped that some of the wholesale druggists will take the matter in hand and import large quantities, thereby reducing the price.

[LXII.]

CREUS BONPLANDII.

An excerpt from Dr. I. J. M. Goss' work, "New Medicines" (published by Parke, Davis & Co., Detroit, Michigan).

I was induced to test this remedy by Dr. Richard E. Kunze of New York, who introduced it to the profession. I have used *Creus Grandiflorus* for some time, and I am very much pleased with it, but I find the *Creus Bonplandii* a superior remedy. It has direct affinity for the heart, and therefore readily relieves many morbid conditions of that organ. It has the power to control the contraction of the muscular fibers of the heart (especially the circular fibers), and thereby it relieves angina pectoris (which has been hitherto regarded as neurogia of the heart), but it is in fact nothing but cramp of the circular fibers of the heart. In valvular disease of the heart, although *Cactus* does not cure, yet it will palliate more than any remedy we have. Hypertrophy, with dilatation, is less influenced by *Cactus Bonplandii* and *Cactus Grandiflorus*, than by *Digitalis*, *Sycopus*, or *Iberis*. The following indications

call for the *Cactus Bonplandii*, viz.: A sense of drawing or tightness at the heart; violent palpitation of the heart, day and night; worse from walking, or lying on the left side; emotional excitement in functional disease of the heart, or, in women, at the menstrual period; angina pectoris; palpitation, either from organic or functional disease of the heart, will generally yield to *Cactus Bonplandii*, if continued long enough; acute inflammation of the heart, either idiopathic or rheumatic, calls for it, but here it should be alternated with aconite or veratrum, whichever is indicated by the state of the pulse; chronic carditis, with oedematous and cyanotic face, difficult respiration, dull pain in the region of the heart, dropsical effusions in some of the cavities, or over the body, cold feet and intermittent pulse, all these symptoms call for *Cactus*. In organic disease of the heart, or in valvular disease, it is a valuable palliative for many of the distressing symptoms. In cases of indigestion, with many persons, there is an unpleasant fluttering sensation over the coeliac axis; in this condition, nothing that I have tried equals the *Cactus*.

In cases where there is a whizzing sound, or *bruit de soufflet*, as the French call it, the *Bonplandii* gives prompt relief. In cases of enlargement of the right ventricle, known by increased dullness, excessive impulse of the heart, the *Bonplandii* will always give much relief.

S E L E C T E D .

Two Cases of Pleurisy, Complicating Phthisis Pulmonalis, Treated by Aspiration, one Followed by Death in two Hours.

Reported to the Cincinnati Medical Society,

BY J. C. MACKENZIE, M. D., PROFESSOR PHYSIOLOGY, MIAMI MEDICAL COLLEGE, AND PHYSICIAN TO THE CINCINNATI HOSPITAL.

C. H., colored, Kentucky, aged twenty, laborer, admitted into the Cincinnati Hospital March 24, 1877. Family history uncertain; has always enjoyed good health previous to present illness; has never been intemperate; denies ever

having had syphilis; has been coughing for three weeks and expectorating mucus; has never expectorated blood.

Condition on admission, a poorly nourished man. Coughs a good deal and expectorates adhesive mucus; tongue furred; appetite poor; bowels regular. Physical examination—inspection negative, percussion normal; on auscultation, crackling sounds are heard at the base of right lung. To take ten grains of cinchonidia three times daily.

I saw this patient first upon entering on my term of service, April 1, but I did not make a careful physical examination until the 12th, when I find the following note: "Dullness over the whole of right side, both anteriorly and posteriorly. Diminished respiratory murmur and fremitus on same side. Pulse weak and dicrotic. Temperature 100° in the morning, 102.5° in the evening." Since the 5th, he had been taking twenty drops of the tincture of the chloride of iron three times daily. This was continued, and he was ordered, in addition, four ounces of whisky daily.

From this time up to the 2d of May, he did not change much, but seemed to be gradually losing strength. The temperature ranged between 100° in the morning and 103° in the evening; pulse 100, and respirations 30. On that day, I removed, by means of the aspirator, sixty-one ounces of sero-sanguinolent fluid from the right pleural cavity. The blood tinge was not very deep, but quite marked. The operation was not attended or followed by any ill consequences, indeed, the patient improved very much. On the 7th, the following note was made: "Comparatively less resonance on the right side just below the inferior angle of the scapula. Respiratory murmur less distinct in the same region than in the corresponding part of the opposite side. Moist rales on the right side anteriorly. Temperature in the morning 99° , in the evening 100° . Respirations 28, pulse 88; more force." The treatment was continued.

He continued steadily to improve, gaining strength daily. The temperature, however, always remained above the normal, from 99° to 100° in the morning, from 100° to 101° in the evening.

On the 9th, an abscess formed over the right side of the inferior maxillary bone, which was opened and found to depend upon limited necrosis of the bone.

On the 16th, the following was the record of the physical examination: "Moist rales heard posteriorly on the right side; percussion note normal posteriorly, slightly higher pitched anteriorly. Some dry rales heard on both sides."

For about six weeks, he continued slowly to improve in strength and was able to go about the ward and assist the nurse. His temperature, however, was always a little above the normal, and the discharge from the abscess persisted and was sometimes offensive. During that time, he was taking cinchonidia and whisky.

On the 24th of June, he was complaining of coughing a good deal. On examination, moist rales were heard all over the chest, and slight dullness above the right nipple. No indication of any accumulation of fluid in the chest. Condition otherwise is fair. Tonic and stimulant continued. On the 6th of July, it was noted that the moist rales were still present, but that otherwise he seemed pretty well.

On the 7th, without any apparent cause, he was seized with most urgent dyspnoea, his pulse became very weak, and he was greatly prostrated. He received carbonate of ammonia and whisky freely. The next day, the symptoms of prostration and dyspnoea continued. Physical examination revealed crepitant rales at the base of both lungs posteriorly, with larger moist rales elsewhere. No dullness on percussion. He died at 1.40 P. M.

July 9th, autopsy nineteen hours after death; slight post-mortem rigidity. Œdema of both lower extremities.

Abdomen was distended, and quite a prominent umbilical hernia was present. The abdominal cavity contained a quantity of clear fluid. The omentum contained a number of small granules, and, at points, was very much thickened. Here and there slight granular deposits were found in the mesentery, but none over the intestinal or parietal peritoneum. In the lower part of the small intestines, the solitary glands were enlarged. Surface of liver contained some organized

lymph, but the substance was normal. The spleen contained a number of small yellow granules on the surface and in the interior, varying from the size of a pin's head to that of a small pea.

The color of the kidneys was lighter than normal and the consistence not quite so firm. On opening the thorax, the right pleural cavity was found to contain a quantity of clear fluid. The lung was partially compressed. Its surface was covered with a thick, firm fibrous membrane. Throughout the lung everywhere were found numerous deposits, some as small granules, and others occupying a considerable portion of the lung tissue. The bronchial glands were everywhere enlarged, and contained a large amount of pigment. The left lung was thickly studded everywhere with small granules; they were not blended together in large masses.

Brain normal. An opening communicated with the external surface of the lower maxillary bone, which was denuded of periosteum and carious for one-half inch to left of symphysis to within one inch of angle. The roots of some of the lower teeth were exposed.

Benjamin P., colored, aged forty-four, Virginia, married, cook. Admitted to Cincinnati Hospital February 25, 1878. Family history unknown. Never had syphilis; has been a regular drinker.

Says that last summer he had "inflammation of the stomach and bowels." Was confined to bed four weeks and became much emaciated. Suffered much with pain in the abdomen, but did not have diarrhoea. Three weeks ago, while at work, he was seized with chilly sensations, pain in the head and stomach, vomiting and looseness of the bowels; has had a cough for six months.

Condition on admission: A man of average size, fairly developed and nourished, tongue coated, appetite good, bowels loose.

Physical examination: There is a decided prominence in the epigastric and right hypochondriac regions. Respiratory movements more marked on the left than on the right side of the chest, at the lower part of which they are almost

completely absent. Immediately below the nipple, the chest measures, on the right side, $17\frac{1}{2}$ inches, on the left, $16\frac{1}{2}$ inches. Some dullness, on percussion, immediately below the right clavicle, and slightly prolonged expiration with some moist rales in same region. In the mammary line of the right side, marked dullness exists at the nipple and extends downward one and one-half inches below the cartilage. Hepatic dullness extends to the left mammary line, and in the median line reaches down to within one and one-half inches of the umbilicus. Posteriorly, dullness begins at the spine of the scapula and extends down to the borders of the ribs. Respiratory murmur over the dull space, both anteriorly and posteriorly, is very feeble, and a few moist rales can be heard. Distinct bronchophony is also present and diminished fremitus. He was ordered quinine three times daily.

He did not improve; indeed, his strength seemed to be failing. His temperature remained elevated, about 99° in the morning, 101° in the evening. Respirations became more frequent, reaching, on the evening of March 5, sixty in a minute. There was, however, no difficulty in breathing; cyanosis.

On March 4, the chest was explored with a hypodermic syringe, and a small quantity of straw-colored transparent fluid removed.

On March 5, the needle of the aspirator was introduced into the right side of the chest, one inch below the inferior angle of the scapula, and twenty-seven ounces of fluid withdrawn. The first part of the fluid was transparent, but it was afterward tinged with blood. After about a pint had been removed, he complained of pain in the epigastric region, and soon afterward of great distress in breathing, cough and bloody expectoration. Before the aspiration, the pulse was 108 and respirations 60. Five minutes after the operation, his pulse had run up to 140; was very feeble; respirations 80, and attended with great distress, and temperature 102.3° . He was ordered whisky and gr. $\frac{1}{2}$ of morphia sulphate hypodermically, and the latter was repeated in about half an hour as the distress continued. The cough and hæmoptysis and painful breathing continued for about half an hour longer and

then subsided, but the breathing remained very frequent, although there was at no time any cyanosis. He gradually grew weaker, and became unconscious for about half an hour before death, which occurred at 12.30 o'clock. The amount of blood which was expectorated did not amount to two ounces.

Post-mortem examination made twenty-two hours after death, by Dr. N. P. Dandridge.

On opening the chest, the right lung was found retracted against spinal column. In the cavity of the pleura was found ten ounces of bloody fluid. The lung was partially covered with thick false membrane. Over the lower part of the lung, the surface was found uncovered, as though the membrane had been torn off by sudden expansion. The apex was adherent to the chest wall, and throughout the upper part of the lung were a number of gray discrete masses about the size of a pin's head. The upper lobe was partially calcified, the lower lobe œdematous. The left lung everywhere firmly adherent. Throughout the substance were discrete masses, which were perfectly translucent; there were also some patches of lobular pneumonia. Portions of the lung sank in water, though the lungs were generally crepitant. Pericardium contained clear serum. Right ventricle greatly dilated; left, considerably so. Cavities empty. Veins of neck all over-filled with blood. Abdominal cavity exhibited evidence of general bad peritonitis. Small intestines firmly matted together. Surface of liver firmly adherent to diaphragm. Liver itself somewhat enlarged and pale. Spleen adherent to diaphragm and stomach, it is somewhat large and soft; contained a number of small abscesses and capillary hemorrhages. Kidneys somewhat large and flabby. One ulcer, with hard, thickened edges, was found in the ileum. Some tubercular masses were found in the peritoneum.

The results of the aspiration, in these two cases, were strikingly in contrast, and yet the condition of the two patients at the time of the operation was very similar; both were known to be suffering with phthisis pulmonalis besides the pleuritic effusion, and the withdrawal of the fluid was simply intended as a palliative measure to relieve the breathing and promote the

general comfort of the patients. In the first case, this result was attained to an unexpected extent. The patient who previously had been steadily going down, began at once to improve, was soon able to leave his bed and go about assisting in the work of the ward. What occasioned the sudden attack of dyspnœa, which immediately preceded his death, was neither revealed by a careful examination before his death, nor by the post-mortem inspection. It is true there was found some fluid in the pleural cavity, but not enough to account for the urgent difficulty of breathing which he exhibited, nor was the œdema of the lungs sufficiently developed to explain it.

Encouraged by the beneficial effects of the aspiration, in this case, I resorted to it without hesitation in the other, who gave very much the same history, and presented very similar conditions. The unfortunate consequences are probably to be referred to the effects of the tension occasioned by the withdrawal of the fluid upon both the heart and lungs. The symptoms which he exhibited were a combination of apnœa and asthenia, his breathing was very rapid and labored, and his pulse small and frequent. The tension must have been very considerable, as it sufficed to produce the dilatation of the heart cavities, noticed after death, and the laceration of the rather firm membrane which covered the lung, and of the lung tissue itself, as indicated by the expectoration of blood. No doubt this violence done to the tissues, necessarily seriously affecting the nervous system, must have played some part in the production of the fatal issue; and yet the amount of fluid removed was not great, only twenty-seven ounces, and the aspiration was at once discontinued upon his complaining of a sense of constriction and pain. The damaging effects must be referred to the inexpandible condition of the lung, inclosed as it was by firm membrane and its tissue condensed by old standing disease. I regret now, that, upon the occurrence of the alarming symptoms, I did not at once re-establish the equilibrium of pressure by admitting air into the pleural cavity, which could have been very easily done by simply detaching the aspirator needle from the india-rubber tube. If I should ever be so unfortunate as to encounter a case presenting

similar conditions, I should act promptly in this manner. It is very possible that the injury inflicted upon the thoracic organs by the aspiration would have proved irremediable under any treatment, still, I think that the course indicated would have given the patient the best chances for his life.

The Therapeutical Action of Cold.

A LECTURE BY W. H. THOMPSON, M. D., PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

GENTLEMEN: Remedial agents are of two kinds; first, drugs, and second, other therapeutic measures, such as temperature, electricity, etc. For the sake of convenience, we will here consider those remedial agents which are not drugs, and, first, among them we will study one of the physical forces or imponderables—cold.

Physically, cold is the absence of heat. Therapeutically, it is a positive agent, and has five actions:

1. Tonic.
2. Styptic.
3. Antiphlogistic.
4. Anæsthetic.
5. Antipyretic.

In the first three, cold acts only upon the vaso-motor system as a pure irritant neurotic. In the last two, it acts simply on physical principles.

COLD AS A TONIC.

We have said that cold, when it acts as a tonic, is an irritant. Every irritant produces a shock and causes an expenditure of the energy of the part irritated. The energy of the part irritated, therefore, becomes depressed; but this depression differs from that produced by a simple sedative, in that it is followed—provided the shock is not so great as to cause exhaustion—by a *re-action* to or beyond the condition in which the part was prior to the irritation. Thus, cold, as an irritant, affects the vaso-motor system and produces a shock which is followed by a *re-action*. In other words, this system

is exercised, and all moderate exercise tends to strengthen the organ called into action and permanently to improve its nutrition. Cold, then, is a vascular tonic, and may be used generally or locally. When the circulation is feeble, and there is loss of muscular power, the general use of cold will arouse the heart, restore arterial tone, and thereby improve the nutrition of the whole body. For this purpose, either the dip, shower or sponge bath may be used, according to the strength of the patient, taking care never to cause exhaustion by its too frequent or too protracted use. A thorough re-action, as indicated by a glow of the skin, should always follow the bath, and never a sensation of lassitude or fatigue. When the irritant effect produced by the cold water alone is not sufficient, salt or some mild rubefacient may be added. If the patient is too feeble to bear even the sponge-bath, simple exposure of the surface of the body to cold air will often prove beneficial. In all cases, re-action may be assisted by friction with a rough towel.

A cold douche to the nape of the neck is indicated in the following conditions:

1. When, after sunstroke, the arteries of the head remain dilated, and there is headache and dizziness on exertion or exposure to the sun.

2. In all cases in which headache is confined to one side, and is attended by dilatation of one temporal artery and suffusion of one eye.

3. In false croup, or the crowing respiration of children.

4. In tinnitus aurium, when the throbbing is synchronous with the beating of the heart, and the tympanic arteries are distended, the cold douche to the nape of the neck, aided by the internal use of hydrobromic acid, may afford relief.

Sponging the chest of a phthisical patient with cold water lessens the susceptibility to cold.

Local applications of cold water are useful in promoting absorption of inflammatory effusions and exudations in the subacute and chronic stages; also in restoring the balance of the circulation in the liver and spleen when enlarged in malarial poisoning.

The hip or sitz bath is useful in hemorrhoids, prolapse of the rectum and congestion of the pelvic viscera.

COLD AS A STYPTIC.

As a styptic, cold acts by constricting the arteries through its influence on the vaso-motor nerves. It is preferable to astringent drugs or other hemostatics, because it obviates the necessity of applying irritant substances to the bleeding part. Nor need the cold always be applied directly to the seat of the hemorrhage; for it will also affect distant parts in accordance with the laws of the vaso-motor system, the most important of which are the following:

First.—An impression on the afferent nerves of a given part will cause a variation in the caliber of the arteries of that part.

Second.—An impression on the afferent nerves of a given part will cause a variation in the arteries of all organs situated directly beneath that part.

Third.—In the case of organs which are in pairs and perfectly symmetrical, as the eyes, ears, hands and feet (the lungs, kidneys and testicles are not), variations in the caliber of the arteries of one will cause a similar variation in the other.

Fourth.—Variations in the caliber of the arteries of certain parts are accompanied by corresponding changes in the arteries of certain other parts, and these particular associations are to be determined by experiment. For example, the relation between the circulation of the feet and that of the pelvic viscera and the pharynx, and the relation of the circulation at the nape of the neck to that of the head and face.

The following instances will suffice to illustrate the application of these laws in the use of cold:

1. Cold water applied directly to a bleeding surface.
2. Ice-bags to the epigastrium to check hæmatemesis.
3. Holding any cold body in one hand to arrest hemorrhage in the other.
4. Cold foot-baths to arrest metrorrhagia.

In post-partum hemorrhage, the best means of applying cold is by ether spray, for the sudden and intense impression

produced causes effectual contraction of the uterus without chilling the patient. If ether spray is not available, cold water should be poured upon the abdomen from a height of two or three feet, the shock of the falling water materially assisting the action of the cold. Either of the above measures may be used for hæmoptysis.

COLD AS AN ANTIPHLOGISTIC.

As an antiphlogistic, cold may be used to arrest an acute inflammation, unless suppuration has occurred, or to prevent inflammation when threatened. This it does by causing a protracted constriction of the arteries, thereby preventing the active congestion essential to all acute inflammation. It should be invariably applied as dry cold, directly to the part affected, in sufficient intensity to relieve pain, and continued so long as the exciting cause exists. If, before the tendency to inflammation has entirely disappeared, a neuralgic pain occurs, it is a sign that the vaso-motor nerves have become exhausted, and the use of cold must at once be discontinued, or gangrene will result; moreover, the patient will feel more comfortable without than with the cold applications. This neuralgic pain is continuous, and, if the injured part be one of the extremities, it extends from the part injured toward the trunk. Inflammatory pain, on the other hand, is local throbbing, accompanied by local heat, and is relieved by more thorough applications of cold. In fractures, or other severe injuries near joints, the injured parts should be surrounded with pounded ice placed in pigs' bladders or rubber bags, two or three layers of perfectly dry muslin being placed between the skin and bags, lest the parts be chilled too suddenly. A bottle filled with ice-water makes a good antiphlogistic splint for injuries of the hand. Inflammation of the eyes may be controlled, and its spread from one eye to the other prevented, by means of cold applications. Ice-bags should be applied to the head and spine in epidemic cerebro-spinal meningitis. Cold applications will control the spread of erysipelas, and are the best means for relieving febrile headache. Headache from uterine trouble is best relieved by moist warmth. Cold should

not be used antiphlogistically in any acute inflammation of internal organs except peritonitis with vomiting and meningitis.

COLD AS AN ANÆSTHETIC.

The use of cold as an anæsthetic depends upon its physical property of freezing tissue and deadening sensation without injuring vitality. It is most useful in operations where no great thickness of tissue is involved, as in opening abscesses, amputation of fingers, Cæsarean section and ovariectomy. In all cases, the action of the cold should be secured as rapidly as possible. Apply ether spray to the part alone which is to be operated upon. Anæsthesia is complete as soon as the skin becomes white and glistening.

COLD AS AN ANTIPYRETIC.

When the abnormal elevation of the bodily temperature is due to the insufficient radiation of heat, as in some nervous disorders, it is not generally in itself dangerous; for it has been known to reach 123° F., and remain there for several weeks. But if, as in fevers, the rise of temperature depends upon excessive chemical changes, then the heat itself is injurious, causing arrest of gland-secretion, as well as extensive destruction of tissue. In every fever, there is a certain point beyond which, if the temperature rises, certain structural changes will take place. The glands become affected with cloudy swelling, and fatty degeneration ensues, and the muscles affected in the same manner become remarkably brittle.

The point at which these changes occur differs in each fever. In scarlet fever, it is 105° F.; in typhoid fever, 106° F.; in relapsing fever, from 107° to 108° F., and, in erysipelas, still higher. Beyond this dangerous point in each fever, the temperature should not be allowed to rise, but must be lowered by the use of cold, the result of which is simply the abstraction of heat. This may be effected by immersion in a cold bath or by the cold pack. Place the patient in a bath at 75° F., and gradually cool the water down to 65° or 60° F.—never lower—and, at the same time, use cold affusions to.

the head continuously. At first, the temperature will rise slightly, owing to the blood being driven from the surface of the body into the viscera, which are always a little warmer than the skin; but the bath should be continued until the temperature is reduced to 100° F., provided the fall is gradual—that is, one degree in six, five, four or three minutes. If it falls one degree in two and a half minutes, stop the bath when the temperature has reached 101° F.; for, in most cases, a further reduction of one degree will occur after the bath is discontinued. If the fall in temperature during the bath be one degree in *two* minutes, the patient should be taken out at once, whatever the actual temperature may be; for, in such cases, there is danger of the subsequent fall becoming uncontrollable, reaching, perhaps, 97° F., and the patient passing into collapse. Should this at any time occur, wrap the patient in hot blankets, apply hot saucers to the epigastrium, and give brandy or other stimulants.

When, for any reason, the bath is impracticable, the cold pack may be used, always, however, with the same precautions as in the use of the cold bath. First wrap the patient in a sheet wrung out of water at an ordinary temperature, say 70° F., and then lay on other sheets wrung out of ice-water. The cold bath or pack should be repeated often enough to keep the temperature below the point of danger for that particular disease. If necessary, use one every hour. If, however, two or three a day are sufficient, one should be so timed as to be given just before the highest rise of the fever-heat—that is, usually between 2 and 3 o'clock in the afternoon.

The contra-indications to the antipyretic use of cold are hemorrhage from the bowels and notable variations of temperature from the regular course. Bronchitis and pneumonia are not necessarily contra-indications.—*Medical Record*.

A Case of Suspended Animation.

BY T. J. REID, M. D.

The editor of the *Clinical Record* having requested my notes of a case which has acquired considerable notoriety

from reports given to the secular press by relatives of the patient, I herewith transmit them for publication :

W. J. Yost is of medium stature, with a large head ; about fifty years old ; of temperate habits, except a free use of tobacco, and by profession a lawyer. He had enjoyed good health in the main until last March he was troubled with difficulty in breathing and great distress about his chest, in his language, as if he "was breathing through a dry sponge," which lasted about six hours. Ten days later, he had a second attack very similar to the first, except the addition of a very distressing cough and great pain about the stomach, aggravated by any kind of physical exercise. In the April following, his feet began to swell, and by the first to the middle of May thereafter he presented an extreme case of anasarca. During this time, he was treated at his home by Dr. J. E. Bronson, who advised tapping. He would not consent, and two unsuccessful attempts were made to produce blisters upon the pendent portions of his inferior extremities. The emplastrum cantharides was allowed to remain on the inner and posterior portions of the calves of his legs six to nine hours with no perceptible effect. Immediately after removing the second fly plaster a few drops of cold water over the same promptly produced good blisters, which, by vicarious action, drained the entire effusion from the serous cavities until he was gradually relieved to the knees. These secreting ulcers, which spread over all the pendent portions of the legs, from an inch or two below the knees to the ankles, have been benign, and spared his life so far. They are still performing their merciful duty, and do not allow any accumulation of fluid above their positions.

They have been extremely painful at times, and took on an electric character of pain for about a week or two before his condition of "suspended animation," as described in the *Cairo (Ill.) Argus*, *Globe Democrat*, the *Jefferson City (Mo.) Daily Tribune*, and other newspapers. Still, before his arrival at Hot Springs, he states that, as when I first saw him in the latter part of the past summer, his urine was always scanty and high colored ; specific gravity 1,040. The secretion from the ulcerated extremities was, like the urine, highly acid and

caused, all the time, a burning pain, etc. On his arrival, I found him suffering with dyspnoea and a very considerable *enlargement of the heart*, causing mitral insufficiency with dilatation and regurgitation; the pulse was intermittent. His general health was very good except occasional loss of sleep from the pain in his limbs induced by the excessive oedema and the irritative chemical character of the secretion constantly flowing therefrom. Frequent examinations of his urine, which was scanty, high colored, acid, and of a specific gravity, ranging, in three weeks, from 1,030 to 1,040, and daily quantity not over eight ounces to a pint, showed no albumen, no phosphates, but a large amount of the crystals of uric acid, cystine and confervoid growths. The secretions from his ulcerated legs developed about the same characteristics as his urine, except an admixture of pus and blood corpuscles.

On November —, I was called in great haste, and found Mr. Yost apparently dead; no pulse, no breathing, evidently moribund. A careful examination developed that his body and extremities were warm, pupils contracted and the veins of the extremities unusually full, which would refill very rapidly after removal of pressure. The expression of his features was as if distorted by pain and drawn to one side. I applied a sinapism to the spine, lowered the head below the level of the body, and in a few moments applied electricity—strong current—to cervical and dorsal regions, and practiced artificial respiration for some minutes before signs of life returned. I suppose this indefinite period lasted half an hour or more. The first few times he breathed unassisted, showed his bronchial tubes to be filled with a tough phlegm sufficient to exclude the air almost entirely. I turned him face downward over the side of the bed, which caused him to cough and loosened the viscid mucus so that I could reach and remove it with my fingers. It was so tenacious that it looked as though a rope was being withdrawn from the mouth. After this, his respiration rose to four to the minute, which was about 7 P. M.; at 8 P. M., to six to the minute; at 10 P. M., to nine to the minute, and the pulse could be detected at the wrist, but very irregular, failure seeming to depend on regurgitation, which was as constant as

the effort of the heart to send the blood to the general circulation. At 11 P. M., the pulse improved and was more distinctly intermittent with a better character of action; this gradually improved, as did his breathing, until 4 A. M., when his respirations reached fifteen to the minute, his irregular pulse went up to sixty-six to the minute. After 11 P. M., he would swallow anything put into his mouth, and I gave him strong coffee, aromatic spirits of ammonia, and used, at the beginning, aqua ammoniæ and nitrite of amyl until it seemed to disturb the natural breathing.

I kept him *continuously agitated*, because whenever we would relax our labor at resuscitation, he would instantly cease to breathe, and the heart, also, would cease to act. We could not leave off our attendance until his respirations reached fifteen to the minute.

For two days previous to this suspended animation, he was free from pain and did not take medicine of any kind, and never but once did I give him an opiate, and that was two weeks previous to this attack.

His general condition is very much improved. Ulcers still secreting; urine considerably changed, natural in color, specific gravity, 1,020; no confervoid growths, no excess of uric acid; small amount of cystine still, and quantity about three pints daily. The secretion from ulcers on the limbs contains some laudable pus of late, and much of the ulcerated surfaces of the limbs have healed, and the heart has improved so as to exhibit only an intermittent condition without its former evidences of regurgitation. The good result gained in this case is owing to jaborandi and the daily use of the celebrated mineral waters of the Mountain Valley Springs, near this place.

I had with me several medical aids, but their prognosis was unfavorable, and they abandoned me to the long and tedious labor alone, and I had no assistance except from a few faithful laymen. I shall always feel proud of this night's work, for I have prolonged, if not saved, a valuable human life. Mr. Yost is a splendid gentleman, a fine humorist, full of anecdote, and relates some amusing incidents of his "crossing the *River Styx*," and return from the "dark Plutonian shore." He

says that he hopes to return restored to health to Illinois, to stump the State for his political favorite, and tell his people what a grand reception awaits the latter beyond the Styx when he has gotten through a Presidential term.

I trust my notes of this case may *teach us, in cases of sudden death, not to fail to examine, and, at least, to try resuscitation*, if any hope is entertained *that it is or may be suspended animation*.

I sent the two telegrams that brought Mrs. Yost to Hot Springs, and on her return to her home she gave the newspaper account referred to in the editor's letter.

Please accept my congratulations for the valuable medical literature that the *Clinical Record* favors us with.

HOT SPRINGS, Ark., December, 1878.

—*Clinical Record*.

Cascara Sagrada (*Rhamnus Purshiana*).

BY GEORGE W. COOK, M. D., SYRACUSE, N. Y.

This comparatively recent addition to the medical armamentarium has attracted much and deserved attention as a peculiarly valuable "new remedy." Being well aware of the proneness of American physicians to "ephemeralism in medicine," I, nevertheless, am constrained to add my observation and experience regarding the remedy in that troublesome and widely prevalent disease commonly known as habitual constipation. I may premise that the positive, and, perhaps, to some, extravagant statements I may make, receive their emphasis from the experience I have had with this medicine in my own person—an experience which has paved the way for the use of cascara sagrada in a number of cases in practice.

A brief history of my malady may not be wholly uninteresting, as going to show the prominent features of a typical case of habitual and confirmed constipation, with its attendant and induced complications.

I am fifty years of age, and, for more than a quarter of a century, have been in the active practice of my profession. While a schoolboy, and hardly well on my second decade, I found that I was more or less troubled with constipation, and

that this difficulty increased with the lapse of time, until the efforts to evacuate the bowels were attended with pain, the stools being streaked with blood. Then followed pain and hemorrhage, intensified while at stool, and soon pain for several minutes, and eventually for hours afterward. Following this condition, came positive impaction of feces in the rectum, and then hemorrhoids, which became so engorged, so inflamed and so painful as to be almost unendurable. I need not add that, with all these, were obstructed portal circulation, retained and regurgitating bile, gastric and intestinal irritability, flatulence—in short, confirmed dyspepsia, with more or less abdominal pain, cerebral congestion, and a sallow, muddy chloasmic skin.

Thus the malady continued and pursued steadily, progressed until the colon became so torpid as to be unable to propel its contents into the rectum, and for years the latter was but a depository instead of a passage-way.

The residua of the ingesta were habitually lodged above the sigmoid flexure of the colon. The muscular coat and the sympathetic nerves of the colon had well-nigh suspended their functions and refused their interposition unless goaded to action by laxatives, cathartics in increased quantities and frequency, or deluging enemata.

Of course, the retained feces engendered flatulence, and the flatulence caused enormous distention of the colon, attended with all degrees and intensity of colic—of confirmed *colalgia*—hope this word is not a neologism; if it is, it is so because no legitimate term can sufficiently express my misery.

But, during many of these long years, I was continually confronted with the taunt so encrusted with age, "Physician, heal thyself!" but, obedient to the injunction, I have ever striven so to do, and am still my own champion, veteran patient, and am, thank God, at last a hopeful convalescent.

I have resorted to diet, to systematic exercise, to laxatives, to cathartics, to cerebro-spinal stimulants, such as nux vomica, which latter I have taken almost to tetanism; to belladonna, until nearly blind; to podophyllum, until my throat was as dry as Cullen's "Nosology;" to rhubarb, until my stomach

seemed to be given over to acrobatics. Finally, and for more than twenty years last past, as a matutinal resort, I have employed large enemata of cold water, which served to temporarily excite the action of the muscular and nervous forces of the large intestine, and which, therefore, became my only means of relief.

Without the enema, notwithstanding a full cathartic had been taken to contribute to the twinges of my "true inwardness," it was as impossible for me as it would be for Greenough's statue of Washington to have an evacuation of the bowels.

Of course, it is not pleasant, perhaps not in good taste, for one to parade his own infirmities before the world, but "other hearts must ache," and "there is a balm in Gilead" for them too, and, thanks to Dr. Bundy, I have found it in a physical and important sense, and under the name *cascara sagrada*.

In June, 1878, while in attendance at the session of the American Medical Association, in Buffalo, I was presented with a sample bottle of the fluid extract of *cascara sagrada*, with a circular embodying the observations and comments of different practitioners remarding its therapeutical effects.

I examined its sensible properties, and, regarding it only as a modification of the *rhamnus catharticus*—a dose of which latter, if it in the least transcends the limits of a laxative, will seem to turn one inside out—I laid it aside. But at a session of our Central New York Medical Association, in this city, in May last, I obtained another sample of the medicine from the same source, and resolved to give it a fair trial. I at once prepared a mixture after the following formula :

R. Fl. ext. *cascara sagrada*,
Simple sirup, of each, $\mathfrak{z}$ j.
Ext. malt, $\mathfrak{z}$ ij.

M. Sig. A teaspoonful before meals. Immediately I began the use of this prescription, and, without any other aid, I had regular and comfortable morning evacuations of the bowels.

The morning lavements were discontinued, and have been ever since. The action of the medicine continues to be

prompt, certain, painless, and the above dose, even but once a day, to this time, perfectly effectual.

I regard cascara sagrada as a peculiar tonic of the whole digestive apparatus, affecting, in due proportion, the muscular and nervous forces of the primæ viæ, correcting the hepatic and gastric secretions, as well as restoring normal and necessary mucus to the colon and rectum, thus lubricating and promoting the movements of the feces. Its action, in proper doses, is essentially laxative, producing mushy or molded stools, tinged with the normal bilious hue.

And now, after a careful trial of this, to me, invaluable agent, I am in better flesh, health and strength than at any time before for the last thirty years. I am rejuvenated; I am physically happy!

It will be readily inferred, in view of this experience in my own person, that I should resort to cascara sagrada in my practice, and although not meeting such prolonged and pronounced cases as my own, still I have not as yet been disappointed; and if this paper, hastily prepared at times snatched from the pressure of other duties, shall be the means of inducing other physicians to give the remedy a fair trial, it will prove a blessing to many fellow-sufferers.

Although Prof. Dunster states he cannot say the remedy has worked cures in his hands, he will, doubtless, admit that a certain relief, an undisputed palliative, in such grave functional derangements, is nearly tantamount to a cure.—*New Preparations.*

Fatal Result of Chloral Poisoning.

BY A. G. CRAIG, M. D., VEVAY, IND.

On the 8th of May last, about 3 o'clock in the afternoon, Dr. D. of this city—a most excellent practitioner—was called to see Mrs. K., a stout and healthy-looking woman, pregnant seven months, the mother of four children. He found her threatened with premature labor; the pains were moderately severe, and there was slight dilatation of the os. He prescribed fifteen grains of chloral every fifteen minutes, until she had

taken four doses. As the pains continued and sleep was not induced, in fifteen minutes after he had administered the last dose he gave her twenty grains—making eighty grains in all. In a few minutes she was asleep, and he went to his office. About two hours later he visited her and found her in the following condition: Pulse 150, small, weak and compressible, and almost imperceptible; respirations about ten per minute, inspiration occupied about one second, and expiration four or five seconds. She breathed through her mouth, it being wide open. Breathing was stertorous. She could be roused slightly by speaking loud to her or by pinching up the skin, but she would immediately sink into a profound stupor. Her pupils were very slightly contracted and fixed, and would not respond when a bright light was brought near the eyes. Her skin was of a dark bluish or purplish color, more marked in the cheeks and around the eyes than elsewhere. There was a bruit heard over the heart and along the ascending aorta, very indistinct.

I was sent for to see her, in consultation with Dr. D., and found her in the condition described above. We immediately injected $\frac{1}{16}$ of a grain of atropia hypodermically, which we repeated in fifteen minutes; we also gave her strong coffee freely, and endeavored to keep her awake by speaking loud to her, and by having her walked across the room occasionally. About one hour after I first saw her, we injected hypodermically $\frac{1}{8}$ of a grain of strychnia. Electricity was also resorted to, but without any apparent benefit. A drachm of whisky was injected hypodermically every half-hour during the succeeding twelve hours. We also administered two and a half grains of carbonate of ammonium every thirty minutes. Sinapisms were applied over her spine and to her limbs, and bottles filled with hot water to her body.

At 7 o'clock, P. M., she was unconscious and insensible. She could be pinched or slapped, or her conjunctiva touched with the finger, without arousing her. In fact she was as profoundly anæsthetized as she could have been with chloroform; and in this unconscious and insensible condition she remained through the night. At 10 o'clock P. M., respirations five per

minute, breathing stertorous and through the mouth, expirations four or five times as long as inspiration. Loud rattling sound in her throat like coarse subcrepitant rales. A frothy matter exuded from her nostrils constantly—a pint or two—similar in character with that which oozes from the mouth and nose of dead persons a few hours after death. Pulse 160, small, weak and almost imperceptible. Skin cool—the purplish color rather more marked; the capillary circulation very sluggish.

At midnight there was slight improvement in some of the symptoms: Pulse 145 or 150, respirations ten or eleven per minute, breathing stertorous, and she remained insensible and unconscious.

At 3 o'clock A. M., on the 9th instant, the pulse was 140, still very weak, respirations eighteen or nineteen per minute. Breathing stertorous and through a wide-open mouth. No change in the color of the skin. Temperature 103° Fahr. At 5 o'clock, A. M., her condition was unchanged, excepting respirations were more frequent. At 7 o'clock A. M., she presented some indications of consciousness; other symptoms much the same.

At 8 o'clock A. M., labor pains set in. She would bear down when she had a pain; breech presentation. Labor progressed rapidly, and terminated in an hour; child born dead. The placenta came away without any difficulty, and the womb contracted firmly. There was very little blood lost. Temperature immediately after confinement, 101½° F.; respirations twenty-three per minute; breathing slightly stertorous, and through the mouth; inspiration short, expiration prolonged. Pulse 120, small, weak and compressible. Color of skin unchanged. She is more conscious and sensible; says she slept well last night, and recollects nothing that transpired.

I did not see the patient during the next twenty-four hours, but Dr. D. informs me that she gradually failed. She became very restless and nervous; was more conscious, but was not sensitive to pain. At 8 o'clock A. M., May 10, I again saw her. The pulse was imperceptible in the left arm, but could be felt in the right; respirations thirty-three per minute, and

stertorous breathing. The bowels were tympanitic, with slight soreness over the womb. There were mucous and subcrepitant rales at the base of the right lung, and at the apex of left lung. She was conscious and sensible; failed gradually, and died at 10 o'clock A. M.—*American Practitioner*.

Veratrum Viride to Abort Surgical Inflammation.

Read before the West Side Medical Society December 4, 1879.

On the 13th of July, 1879, Edwin V., aged about fifteen years, fell from a trapeze, a distance of twelve feet. His fall was head foremost, and struck upon a flagstone. He had on a soft felt hat, and the scalp was not lacerated by the fall. He was taken up insensible, and a physician immediately near was summoned. Within an hour, he was attacked with convulsions and also vomiting, but neither continued for any long time, and the attending physician ordered no treatment except cold applications to the head.

July 14, about eighteen hours after the fall, I was called to see the case—having been the family physician for years. The patient was entirely sensible, and complained only of pain in the head. Pulse 92; temperature, both of the head and of the limbs, somewhat elevated.

An examination of the head showed a fracture of the right parietal and temporal bones. A section of the skull four inches in length and two and five-eighths in breadth, of an essentially ovoid form, was depressed to the extent of nearly one-half inch. The edges of the skull around the depressed portion were sharp and clearly defined and pretty regular, except that portion which belonged to the squamous portion of the temporal bone; this was more deeply depressed, and the surrounding edges were irregular and rough. There was no wound of the overlying scalp, but the contusion of its blood-vessels had somewhat elevated the scalp with blood. There was no evidence of a comminuted fracture, and this, with the evenness of the edges, induced me to hope that the natural resiliency of the brain might again raise the depressed portion of skull to

its normal position. I thought it expedient neither to trephine, nor to otherwise elevate the bone.

The prognosis of such a case is, of course, quite adverse to recovery, the best authorities showing that only one in about fourteen recovers.

The scalp not being abraded, the following was ordered as a lotion to the seat of injury:

R Ext. Belladonnæ, fl.....gram.

Aconiti Rad., tinct..... “

Arnicae. tinct. aa “ 32 (3 i).

M. Apply once in two hours, and also place over the injured parts a folded cloth thoroughly saturated with equal parts of alcohol and ice-water.

At this visit, 10 A. M., the fever of re-action had well commenced, the pulse being 92, and the temperature, even at the ankle, considerably above the normal. This made it probable that in a few hours the traumatic inflammation would raise the pulse to 120, and the temperature, probably, to 104° or 105°.

Can any treatment promise a probability of success? The records of surgery, as given by such eminent authorities as Velpeau, Sir Astley Cooper and our learned Prof. Gross answer emphatically—No! But the thought occurred that possibly we might limit the febrile re-action with veratrum, and thus abort inflammation. To do this might save life; to fail to do it would still leave us the other resources of similar surgical emergencies. We decided to try veratrum. For more than twenty years, we have used, as an arterial sedative, a saturated alcoholic tincture of the *green root* of *Viratrum viride*. To many thoughtful practitioners, who have objected to Norwood's tincture of the dried root, because of its liability to nauseate, to purge, or to induce prostration, we will say that with the tincture of the *green root*, they will, we think, never be thus disappointed. But perhaps we ought to say that for many years we have always given veratrum along with a stimulant. We have preferred one of the vegetable oils, generally giving the preference to the *Spiritus Gaultheriæ*. These oils belong to the series of hydro-carbons, and are

special stimulants of the nerves of organic life. Their immediate action upon the solar plexus is, we believe, generally conceded by all who delight to study exact therapeutics.

We gave from our own medicine-case :

R	Veratri viridi, tinct.....	gram,	
	Ol. Gaultheriæ, tinct. aa.....	“	4 (3 j).
	Aquæ.....	“	60 (3 xv).

M. One teaspoonful once in two hours.

To an intelligent father was committed the giving of this medicine, and the faithful application of the local remedies. He was frankly apprised of the danger of such practices, and he was most thoughtfully efficient and punctual.

July 14th, 6 P. M.—Eight hours have elapsed; temperature not more than normal at the ankle, and but slightly more than normal upon the cheek; the pulse is 56, but there is no prostration or nausea. We directed half-teaspoonful doses (equal to two drops of veratrum); but this to be increased to the full teaspoonful, if the pulse rose to 60 or more.

The daily details of this case are too dull for recital. The pulse was kept at 56 or 52 for sixteen days. It never was above 56 but once, and this occurred July 26, when the scalp was lanced, to liberate the coagulated blood which had been effused. Prof. Gunn was in consultation at the time, and the momentary excitement brought the pulse to 60. I stated to him my treatment, which I supposed to be original. He had never known of a similar use of veratrum in the practice of any surgeon, but thought it entirely rational, and expressed much approbation of the originality and results of the remedy.

The local pain was prevented by the applications, and the local inflammation and consequent constitutional fever were sedated with the veratrum. No other treatment was used, except that on the second or third day a cathartic pill of podophyllin, modified by nux belladonna and capsicum, was used to produce cathoisis and secure metastasis of excitement from the brain to the bowels. The boy suffered nothing; the depressed bone is now even with the surrounding structure, except at one small point in the temporal bone. On leaving off the veratrum, the pulse rose to 72, which we supposed to be his normal pulse.

He was dismissed August 1, and has continued to this date (December 3) in apparently perfect health.

We leave to the profession this simple statement of exact truth as to this case. If spiculæ of bone had been detached from that fractured edge, veratrum might not have secured arterial sedation; and, in many cases, surgical injuries are so complicated that perhaps no agent could abort inflammation, or successfully modify its course. Like Prof. Gunn, who is a thoroughly read surgeon, we know of no authoritative precedent to justify this treatment, but a careful and constant use of veratrum in many inflammations, and through many years, suggests that it may be of more efficacy in traumatic inflammation than the greatest minds of our noble profession have supposed that *any* agent could be.—*Paul W. Allen, M. D., in The Medical Tribune.*

Eucalyptus in Bronchitis.

Dr. Bell says: "The eucalyptus globulus has remarkable anti-catarrhal virtues. The only preparation which I have used has been the tincture prepared by several of our most eminent druggists in Edinburgh, and I have seldom prescribed more than a teaspoonful mixed with a wineglassful of water twice a day. In several cases of bronchitis, with profuse expectoration, I have witnessed remarkable benefit after a very brief use of the remedy, evinced by a rapid diminution of the discharge, and also by a corresponding improvement in the general condition of the patient."—*Druggists' Circular.*

Treatment of Goiter.

Dr. Le Dentu, of the St. Louis Hospital, Paris (*Jour. de Med. et de Chir. pratiques*, November, 1879) has employed interstitial injections of tincture of iodine, the iodo-tannate solution, or of iodide of potassium, several times with success. He introduces into the tumor the needle of a hypodermic syringe, then causes the patient to make movements of deglutition

in order to be certain that the needle has penetrated the goiter, and then injects from five to thirty drops. Pain and inflammatory swelling, variable in degree, follow the injection, but suppuration never, at least this is the case when tincture of iodine is used; it has followed the injection of other liquids. After the period of swelling, there occurs a stage of contraction during which the treatment may be commenced anew, without danger of favoring renewed inflammation in the part first penetrated. He allows an interval of ten or twelve days between injections. They should be repeated three or six times in solid goiter, and a little oftener in those with fluid contents. In forty-seven cases he has obtained thirty-two cures—in the others, there was simple amelioration or relapse. —*St. Louis Clinical Record.*

Death from Chloroform.

Bardleben had witnessed more than thirty thousand cases of chlor. narcosis up to 1876, without a death; in this year, four fatal cases happened in his clinic, which has led him to employ in future only chloral-chloroform. The first case was that of a boy, aged twelve, suffering from white-swelling of the knee, with acute angular contraction. He presented distinct evidences of scrofula and rachitis. Repeated auscultation and percussion excluded any morbid alterations of the thoracic organs. All precautions were taken; the stomach was empty, the clothes loosened and horizontal posture secured. The anæsthetic was administered very slowly and with free admixture of atmospheric air. The operation contemplated (stretching of the crooked joint) was carried out without violence, loss of blood, or external wound. Suddenly the heart ceased, respiratory movements continuing quietly and without interference; a few moments later, the latter ceased, also, and life could not be restored, although the most energetic efforts were made.

For similar cases, in which death evidently results from primary paralysis of the heart and not from suffocation, Bardleben recommends the subcutaneous use of sulph. strychnia,

as proposed by Liebreich. In this case, the measure was resorted to, but too late to be of any avail.

Post-mortem revealed fluidity and dark color of the blood. The sinuses of the encephalon, the great veins of the pia mater, and the heart cavities (of which the left ventricle was alone contracted) were full of blood. The heart structure appeared perfectly normal. At the apex of the left lung, there was a small, shrunken, cheesy deposit, the size of a bean; the entire right lung was adherent by old and firm adhesions, was somewhat paler than the left, but completely pervious to air. The bronchial glands were as large as walnuts, and contained cretaceous deposits.—*Maryland Medical Journal*.

Gunshot Wound of Pregnant Uterus.

Dr. G. A. B. Hays reports (*New Orleans Medical and Surgical Journal*, October, 1879) a case in which a pistol-ball entered the abdomen of a woman six months pregnant, producing miscarriage the following day. On examining the foetus, it was found that the ball had penetrated beneath the left scapula, diagonally through the trunk, and made its exit through the right hip. The ball could not be found with careful examination, and the conclusion was reached that it had passed entirely through the uterus and was still lodged in the abdominal cavity. The patient had a very severe peritonitis, from which she recovered, however, and menstruated twenty-seven days after the accident. On the 29th, she was dismissed, well. Two months later, she was in perfect health and had had no unpleasant effects whatever from the ball within her.

Transmission of Rabies to the Rabbit.

Mr. Maurice Reynaud has recently addressed an interesting note to the Academie des Sciences on the transmissibility of rabies from man to the rabbit. This he has accomplished by the direct inoculation of a rabbit with the saliva of a man-bitten by a mad dog, and the animal infected gave it, in turn,

to two other rabbits. An important fact was elicited in the course of the experiments, showing that the tissue of the salivary glands, and probably the saliva itself, preserved its virulent properties for as long a period as thirty-six hours after death. * * * The important practical point on which M. Reynaud dwells is, that rabid human saliva, since it can produce rabies in the rabbit, is clearly¹ poisonous, and that, in accordance with all analogy, it might induce the same condition in other persons; and hence, that great caution should be exercised, not only in avoiding any introduction of the poison into the body from an accidental bite of the person afflicted with rabies, but that any post-mortem wound in the autopsy of such patient should be carefully guarded against.—*Lancet*.

Veratrum Sabadilla.

Sabadilla contains veratria, and besides that alkaloid, it has other properties. Its most remarkable property is its power over hay fever—summer catarrh. In this affection, very small doses may be taken, say tincture of sabadilla 5 drops, water $\frac{3}{4}$; dose, one teaspoonful every two or three hours, while the patient inhales the vapors through the nares occasionally. An English writer says, thus given, it has seldom failed to cut short the disease. It is always indicated where there are severe frontal pains and redness of the eyelids in coryza. In hay fever, with constant sneezing and profuse discharge from the nose, we have a valuable remedy in sabadilla. In cases of asthma, accompanied with sneezing and constant running of the nose and streaming eyes, sabadilla is necessary for this particular symptom. Its dose must be small, as it, like veratrum viride and album, is toxical in a high degree. I prefer the second or third dec. dilution; the dose of either need not exceed three to five drops, and two drops will generally answer. I make first the saturated tincture, then add one drachm of the tincture to nine of alcohol; this makes the first dilution; then one drachm of this to nine more of alcohol makes the

third dilution, and the third dilution is as strong as is safe to give to children. I have just cured a case of hay fever with this article.—*Goss' New Medicines.*

EDITORIALS.

INFORMATION WANTED.

The following list embraces the names of those graduates of Bennett College whose present post-office addresses are unknown to the Secretary of the Alumni Association. We need the address of every living graduate. Will any one who can impart the desired information be kind enough to give it to us, by letter or postal card. Circulars will soon be issued containing matter of interest to every graduate of Bennett College:

Samuel M. Adams, 1875, Ohio; Seymour T. Baker, 1878, Michigan; Charles W. Bishop, 1878, Illinois; William Ralph Bell, 1872, Canada; E. H. Burrigide, 1877, Illinois; H. S. Brewer, 1879, Tennessee; C. A. Beverly, 1874, Illinois; F. J. Briggs, 1875, Illinois; N. H. Brown, 1875, Illinois; F. M. Chapman, 1877, Illinois; Frank Chenoweth, 1875, Michigan; O. H. Crandall, 1873, Nebraska; J. Canch, 1873, Iowa; Jacob De Foe, 1873, Iowa; John Foster, 1870, Illinois; F. W. Emery, 1875, Vermont; W. B. V. Gorbut, 1871, Tennessee; S. W. Gould, 1870, Iowa; Charles L. Gish, 1874, Wisconsin; Allen W. Granis, 1876, Kansas; Thomas M. Higgins, 1869, Illinois; Mrs. Clara Higgins, 1869, Illinois; E. M. Heffelfinger, 1874, Iowa; Miss Mary E. Johnson, 1870, Iowa; E. Johns, 1873, Illinois; Andral S. Kilmer, 1875, New York; William King, J. M. Lackey, 1878, Illinois; G. T. Manning, 1869, Illinois; John McEwen, 1870, Illinois; William McCann, 1872, Illinois; L. D. Mercer, 1872, Illinois; F. L. Mollin, 1877, Wisconsin; L. B. Mattoon, 1875, Wisconsin; C. Mitchell, 1873, Canada; Thomas R. McInnes, 1869, Canada; Cassander Paddock, 1875, Nebraska; W. A. Palmer, 1875, Iowa; H. Schwartz, 1873, Illinois; C. Stimson, 1873, Michigan; Frank

M. Sawyer, 1878, Indiana; Henry R. Stetson, 1878, Indiana; John A. Shannon, 1876, New Jersey; J. H. Soper, 1877, Kansas; W. W. Salisbury, 1877, New Jersey; C. M. Sutherland, 1877, Illinois; Abram N. Vanriper, 1876, Michigan; Earle Wilcox, 1878, New York; A. T. West, 1874, Iowa; S. G. Wright, 1874, Illinois; W. O. Wilcox, 1873, Michigan; W. C. Wyatt, 1872, Canada; Horace Spencer, 1871, Illinois; George E. Robertson, 1875, Wisconsin.

THE MEDICAL INSTITUTE TROUBLE SETTLED.

We clip the following from the Chicago *Tribune* of December 12, ult.:

"The State Board of Health met yesterday morning in Parlor 44 of the Grand Pacific Hotel, and held extended sessions during the afternoon and evening. There were present Dr. Wardner (Chairman), Anna; Dr. Chambers, Charleston; Dr. Bateman, Galesburg; Dr. Clark, Elgin; and Drs. Ludlam and Rauch, of this city. The matter which engaged the Board's attention during the day was the Eclectic Medical Institute of Cincinnati. This institution has two graduating courses a year, and this was contrary to a rule of the Board. The Institute was represented by Boutell & Waterman, of this city, as attorneys, and Drs. Scudder and Howe, of Cincinnati. The State was represented by Attorney General Edsall. The whole matter was gone over with closed doors, and the rule of the Board, adopted in 1877, compelling each college to have but one graduating course a year, or its matriculates would not be admitted to practice in this State, was gone over in all its phases. At 4 o'clock, the Board took a recess, without having arrived at a result, and adjourned until 7:30 in the evening.

"At this session, the following was submitted on behalf of the Cincinnati Institute:

"The Eclectic Medical Institute of Cincinnati, represented here by Drs. Scudder and Howe, agrees to abide by the propositions advanced in the rules of the said Institute, which are, that three years of medical study are required before

graduation, and two courses of lectures of twenty weeks each, and a period of sixteen months, at least, being occupied by said courses of collegiate instruction, and that the officers of the Institute will give certificates to that effect to graduates of said Institute, and that diplomas shall only be issued in June.

"A. J. HOWE.

"JOHN M. SEUDDER."

"Dr. Bateman offered the following:

"Resolved, That, in view of the foregoing, the diplomas of the Eclectic Medical Institute of Cincinnati will be recognized by this Board.

"This, of course, settled the difficulty, the Institute folks having come up to the rules of the Board."

The above indicates that the old Institute is again in good standing with the Illinois State Board of Health, and, in future, the graduates of that college will be allowed to practice in Illinois, *provided* that the applicant presents a diploma dated in June, and the same is accompanied by an additional certificate, signed by the officers of the college, affirming that the new "M. D." has actually scattered his attendance upon lectures over a period of sixteen months.

This latter clause, which was so strenuously exacted by the State Board, reminds us of the good old conservative Methodist plan of putting their penitent converts "on probation," with a committee to watch their conduct for awhile.

THE MEDICAL TIMES earnestly hopes that the future conduct of the managers of the Medical Institute will be so perfect that even old Father Bateman, of the State Board, can resolve to dispense with the *post-graduate certificate* business, and place the diplomas of the Eclectic Medical Institute on the same basis as those from other medical colleges.

BOOK NOTICES.

NEW MEDICINES AND THEIR SPECIAL THERAPEUTICS. By Prof. I. J. M. Goss, A. M., M. D. (Cloth.)

This is a book of 142 pages, devoted to special therapeutics. One hundred and seventy remedies are briefly and concisely

considered. The most of them are what might be termed new remedies—those which have but recently been introduced to readers of our medical journals. This little book contains much valuable information that cannot be obtained from the older standard works on *materia medica*. The author has followed his usual method, and dwelt principally upon therapeutical facts which are largely derived from his own experiments and extensive experience. Price \$1.25, free of postage. Address George S. Davis, P. O. Box 641, Detroit, Mich., or the editor of the *MEDICAL TIMES*, Chicago.

LECTURE NOTES ON CHEMICAL PHYSIOLOGY AND PATHOLOGY. By VICTOR C. VAUGHAN, M. D., Ph. D., Lecturer on Medical Chemistry in the University of Michigan, etc. Second Edition, revised and enlarged. Ann Arbor: Ann Arbor Printing and Publishing Company, 1879.

In a work of 800 pages, the author, with great clearness and conciseness, and at the same time in an easy and graceful style, has given us a multitude of practical hints in physiological chemistry, pathology and analyses. Much of the work is the result of original research by a careful and industrious teacher, and as such is especially valuable.

The chapter on urine is alone worth more than the price of the book, giving the latest and best modes of conducting investigations and analyses. We cheerfully recommend the work to students and practitioners.

THE THROAT AND THE VOICE. By J. SOLIS COHEN, M. D. Philadelphia: Lindsay & Blakiston, 1879.

We have already noticed and given our unqualified approval to several of the series of "American Health Primers," and the above work seems no whit behind the rest in its adaptability to promote the cause of popular medical education.

A MANUAL OF THE PRACTICE OF SURGERY. By W. FAIRLIE CLARKE, M. A. and M. B., F. R. C. S., Assistant Surgeon to Charing Cross Hospital. From the last London Edition, revised and edited, with additions by an American Surgeon. New York: William Wood & Co., 27 Great Jones Street, 1879.

The last of the series of "Wood's Library of Standard Medical Authors," for 1879, is the largest, and, in our opinion, one of the best. We have carefully examined articles, here and there, not having time for a thorough perusal of the work,

and we are greatly pleased with their practical bearing. We could hardly afford to spare this volume from our library for the price of the whole series.

OUTLINES OF THE PRACTICE OF MEDICINE, with Special Reference to the Prognosis and Treatment of Disease, with Appropriate Formulas and Illustrations. By SAMUEL FENWICK, M. D., Lecturer on the Principles and Practice of Medicine at the London Hospital, etc. Philadelphia: Lindsay & Blakiston, 1880.

This little volume is an attempt on the part of the author to remedy the too common defect of adopting physical diagnosis as the basis for treatment, to the disparagement of those indications furnished by symptoms. The general rules applicable to the treatment of disease in all its forms, as laid down in the first chapter, are most admirable, and may be read with profit by all. Then follow chapters upon acute and chronic diseases, after which separate diseases are taken up, and their treatment delineated. While Eclectics will, for the most part, disagree with many of the author's conclusions, no harm will come from looking at the other side of the question, which is presented in this book in a plain and agreeable style.

PHYSICIANS' VISITING LIST. By LINDSAY & BLAKISTON, Philadelphia.

This List for 1880 makes the twenty-ninth year of publication, and, in spite of numerous rivals, still heads the list in the race for professional favor. We have used it in practice for the last twelve years, and cannot conveniently do without it. The tables which it contains are valuable to all young practitioners. Twenty-five patients weekly, \$1; fifty patients weekly, \$1.50; may be obtained from all booksellers.

HYGIENE OF THE VOICE—ITS PHYSIOLOGY AND ANATOMY. By GHISLAIN DURANT, M. D., Ph. D. A New and Revised Edition. New York: Cassell, Petter, Galpin & Co., 1879.

That a second edition of this work is called for is some indication of the regard in which it is held by the medical and musical professions. The anatomy, physiology, formation and various qualities of the voice are fully and lucidly explained. Then follow chapters on alimentation, sleep, preservation of the voice and the diseases to which it is liable. The work closes with the treatment of diseased conditions, including a chapter of prescriptions.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.

ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[LXIII.]

AMPUTATIONS.

BY PROF. MILTON JAY, M. D., CHICAGO.

The time was, when the subject of amputations was one of questionable expediency among surgeons, it being a question whether, under any circumstances, the knife should be used for removing a limb, however badly mangled or torn by accident, or destroyed by disease; or whether nature should fight the battle alone, and possibly cast off the offending member by the slow process of suppuration and exfoliation, or the patient die, without the removal of the limb, rather than submit to an amputation. But this idea has become obsolete; and amputations are among the recognized surgical operations. People generally have become educated to the belief that it is better to sacrifice a limb than a life; and such is the tenacity with which we cling to life, that we would rather live "halt and blind," than not to live at all. The only question to be settled now by the surgeon is, "Can the limb be saved," so as to be useful to the patient, without too much risk of his life. Although it may be ankylosed and deformed, yet if he can use it as well as an artificial limb, then the original one should be retained. Though artificial limbs are, in these days, manufactured with great skill, and a good degree of perfection, and

often answer the purpose very well, when that is the best that can be done, yet the surgeon should never decide to remove a limb because the patient may be able to wear an artificial one. It often happens that by amputating a limb that is extensively comminuted and lacerated the surgeon saves himself much anxious labor and skill. As a rule, there is but little trouble in attending and dressing the limb after amputating. But much skill and surgical knowledge is often required in saving a limb that is so extensively wounded as to admit of the question whether or not it can be saved, and much more credit and honor is due him that saves the limb without removal than he that amputates, although the title of surgeon may be more rapidly gained by one that is always "thirsting for blood." I shall never forget what an old experienced surgeon once said to me. Said he: "A *butcher* may amputate a limb, but it requires a skillful *surgeon* to save a badly fractured one without amputating," and every surgeon can testify to the truthfulness of this assertion. In many traumatic cases the limb is so mangled and torn as to admit of no question as to the feasibility of removal; but will he survive the operation? can he endure the shock? will we wait until re-action has been established, or dare we wait? for our patient is sinking every moment with nervous prostration, pain and hemorrhage? These are often grave and difficult questions to correctly answer, for while we are anxious to do the very best thing we can for the afflicted and suffering, yet at the same time we must take care of our own reputation (not that reputation should ever conflict with duty; for it should not). In other cases of diseased bone or joint, that has, it may be, after years of slow progress, reached the point where the only chance for life is in the amputation of the diseased limb. In cases of this character oftentimes, it is not an easy question to decide what course should be pursued, when it seems evident that death without an operation is certain, and may be with it.

During the past year I have had three cases of shoulder-joint amputation—two traumatic and one from disease. The first was a man, aged seventy years; slipping off the front platform of a street-car, his left hand and arm was literally

crushed to within three or four inches of shoulder-joint; one of the fragments was forced past and to the inner side of glenoid cavity; the brachial artery was lacerated to such an extent that it was necessary to ligate the axillary; and only muscle enough left to form flaps to cover the glenoid cavity. The patient was comatose, and at the end of four hours no signs of re-action. The only chance seemed to be to amputate. During the administration of chloroform the pulse and breathing improved. I amputated at shoulder-joint. After the influence of the anæsthetic had passed away, the old man was conscious and recovered without any untoward symptoms.

Second case: A lad, aged nine years, had his right arm crushed by a railroad engine passing over and grinding it to fragments to the shoulder-joint, tearing the humerus from its socket; a lacerated wound, four inches in length, along the spine of scapula down to the bone, was also inflicted. The entire flap had to be formed from the inner and upper sides of the articulation, there being no muscle left below, or to the outer side, from which to obtain a flap. I did not delay, but amputated as soon as the little sufferer could be anæsthetized. He made a good recovery. The third case, a boy, aged fourteen years, a patient of Dr. Hall's, of Aurora, Ill., had suffered for some months with what was at first supposed to be rheumatism of the right arm. After much suffering, abscesses formed and suppuration followed from two or three points of the humerus. Examination revealed the fact that the entire bone was in a carious condition. Both extremities and the medullary canal were filled with pus. Amputation at shoulder-joint was the only remedy for the poor boy's life, and the chances here did not seem very flattering, as symptoms of pyæmia were already evident, and he of a scrofulous diathesis; yet, after the amputation, he made a speedy recovery.

Three weeks ago, a gentleman, aged forty-five years, from the interior of this State, presented himself at my clinic for examination and treatment for disease of ankle-joint and tarsal bones. Fifteen years ago, he received a dislocation of the left ankle and comminuted fracture of three of the tarsal bones, by having his foot crushed by machinery, at the same

time receiving some ten or twelve other fractures of ribs, bones of the arm, etc. During the fifteen years, he has been able to walk on the foot a part of the time; then, as he stated, an abscess would form somewhere near the ankle joint, when, after discharging for weeks or months, pieces of bone would be discharged, after which it would heal up again. After spending these years—a part of the time on crutches and a part of the time without, but suffering most of the time—he was anxious for some permanent relief and benefit. The diseased condition of the joint and surrounding parts precluded the possibility of resection. I advised, and he consented to, an amputation about four inches above the ankle joint. He is now able to travel about the hospital on his crutches, feeling more comfortable than at any time for fifteen years, and is once more a happy man.

[LXIV.]

MANAGEMENT OF DISPLACEMENTS OF THE UTERUS.

BY J. T. KENT, M. D., ST. LOUIS.

After a satisfactory examination has determined that a displacement of the uterus is present, and also the true nature of the displacement, the organ should be replaced in its natural position in the pelvis, as near, at least, as can be accomplished by the methods in vogue, of which the operator may take his choice.

The most natural interrogation now is before us, viz.: How can the organ be held in position? Mechanical support is often worthless, and, in unskilled hands, it has been the cause of untold injury. Yet it is not my purpose to decry pessaries, as I have accomplished some good with them. But I shall in this paper attempt to show the manner of treating these troubles physiologically.

During the treatment that I shall direct, the uterus must be restored as often as displaced. When posture and the index finger will perform the work, it is better than the too-frequent use of the sound. When the relaxation is great, in debilitated patients, I immediately put them to bed—of which

I shall have more to say before closing this paper. The milder forms must first receive our attention. Such cases are generally able to go about the house and attend to their duties with no inconsiderable degree of irksomeness, nevertheless, they work and come to the office for their treatment. With the above injunctions in view, the treatment of displacements and prolapsus in all degrees is the same.

The causation and immediate condition of the pelvic viscera must be studied cursorily in connection with the means of relief. It must appear at a glance that relaxation is always present, not simply confined to the suspensory ligaments, but extending to the entire pelvic viscera and abdominal muscles. Then, to effect tenacity and contractility must appear to be the all-important object to be accomplished.

There are many causes mentioned by which these results are brought about, but one I cannot refrain from mentioning, as it figures so often in preventing our cases from a satisfactory recovery. It is sexuality. I have not seldom had to compel a temporary separation, sending the wife on a visit for a period, before treatment would result in any benefit. I do not so much refer to sexual excess as to imperfect coition—unrequited passion. Sexual excesses are not so often the perpetrating cause, as many authors would have us believe; but, in the sense of unrequited passion and mismanagement of the sexual functions, I am a firm believer in, as giving rise to more mischief than all other causes combined. Indeed, if any class of patients I were to avoid, it would be the managing of the uterine disorders of maidens; and few maidens reach advanced years without suffering from prolapsus or some of the common displacements, unless my experience differs widely from that of other observers.

The mere mention of sexuality as I have given, will be quite sufficient to convince any person that I am an advocate of marriage for the cure of prolapsus in maidens, and I am not writing without experience. I am perfectly convinced that normal coition is conducive to health in all beings. After correcting any mismanagement in sexuality, I next direct attention to *cleanliness*, which is no less important in the treatment.

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[LXIV.]
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stipation be present, a vaginal electrode must be substituted. A small sponge upon an insulated holder will answer the purpose in the latter case. When great tenderness *hyperæsthesia* is present in the organ, the anode should always be used. The cathode may now be used over the muscles of the abdomen, lumbar cord and *cauda equina*, also, sometimes *intravaginal*, over the rectum or bladder. At no time should the current be particularly strong. I do not hesitate to remark that intelligent electrization, not electricity, acted in *very* *many* *cases*, will restore nearly every case of the *uterine* *displacements* of *very* *period*.

This leads us to a class of patients materially different in constitution and general surroundings. They are nervous, unable to exercise, *anæmic* and suffering from *many* *illnesses*. The causes are numerous and their condition deplorable. I sometimes begin even these bad cases, if they are not entirely bedridden, by the above process and generally fail after which I put them to bed and pursue Mitchell's treatment, which consists of rest, massage, electricity and diet: rest is bed from three to four weeks, with daily massage, by an experienced masseur, electrization and physiological feeding, will be found highly important measures, and well worth careful and candid consideration. Massage, as a means of depriving rest of its evils, is a most satisfactory agency, and has been too much left to charlatans.

In returning to individual measures, it is quite necessary to remark, that local electrization is insufficient to effect a cure in most if not all cases, but it will assist in bringing about local tonicity, after the entire system, and especially the vegetative centers, have been brought under the influence of the current. In cases of great debility, I generally delay the localized electrization until the patient is eating well and shows signs of improvement in nutrition. With a short continuance of general Faradisation, the patient will be so improved that local electrization may be commenced and continued in alternation with general Faradisation, with increasing improvement.

* Vide "Extend Standard How to make them" by E. W. C. Marshall.

of these cases; without cleanliness not much should be expected from any method of treatment. It may be thought best to accomplish this end simply by warm injections with a vaginal syringe, in conjunction with proper bathing and brisk friction. By too warm applications great good will not so likely result, as such will only increase the relaxation, the reverse of what is most desired. When cold-water injections are agreeable, they should be used; but some females suffer from neuralgia after the use of cold injections, and, in such cases, warm water must be substituted with simply the chill taken off. Lifting overgrown children, running sewing machines, too long walks, running up and down stairs, etc., must all be avoided.

After we have looked into the perpetrating influences of these disorders, we may advise intelligently, but often we do not find them all until a failure to cure threatens us and urges us to look further into the surroundings of our patient. The mild cases which we are now especially considering, we propose to treat by electrization. The larger portion of these cases will be much improved by general and localized Faradisation. I place the patient in a chair, with the back and abdominal surface accessible to the hand, or sponge electrode; her feet are placed in contact with a zinc foot-plate, well padded with sponge and wetted when in use. If there be much tenderness along the spinal cord, which is quite commonly the case, I connect the cathode with the foot-plate and apply the anode sponge to the spinal column, sometimes using the hand instead, also stroking the muscles of the abdomen, combining massage with electrization. The muscles of the abdomen are vigorously rubbed. The current should not be of strength to produce painful contraction of muscles, but the muscles should all be made to contract perceptibly for passive exercise. To the tender places over the cord, the anode should be applied for five minutes at a time. The general Faradisation should be continued as long as twenty or thirty minutes each seance. This should be repeated as often as every four days. The localized electrization should be commenced immediately, by the introduction of an intra-uterine electrode; if too much

irritation be present, a vaginal electrode must be substituted; a small sponge upon an insulated holder will answer the purpose in the latter case. When great tenderness (*hyperæsthesia*), is present in the organ, the anode should always be used. The cathode may now be used over the muscles of the abdomen, lumbar cord and cauda equina, also, sometimes introduced into the rectum or bladder. At no time should the current be painfully strong. I do not hesitate to remark that intelligent electrization, not electricity, added to other proper measures, will restore nearly every case of the broken-down females of our period.

This leads us to a class of patients materially different in constitution and general surroundings. They are nervous, unable to exercise, anæmic and suffering from long illness. The causes are numerous and their condition deplorable. I sometimes begin even these bad cases, if they are not entirely bedridden, by the above process and generally fail, after which I put them to bed and pursue Mitchell's* treatment, which consists of rest, massage, electricity and diet; rest in bed from three to four weeks, with daily massage, by an experienced masseur, electrization and physiological feeding, will be found highly important measures, and well worth careful and candid consideration. Massage, as a means of depriving rest of its evils, is a most satisfactory agency, and has been too much left to charlatans.

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* Vide "Fat and Blood and How to make them," by S. Weir Mitchell.

When relaxation is extensive, and general and localized Faradisation have been continued two or three months without any perceptible improvement, the galvanic current should be resorted to, by centrally galvanizing the sympathetic and locally galvanizing the uterus and its ligaments, also the abdominal muscles. The nutrition processes are markedly favored, in some cases, by changing Faradic to the galvanic current.

It may be asked, why I do not say something about electrotonus, or more about the differentiation of poles, as applied to electrization of these disorders? In answer to such a question, I must say that the point is sometimes important, but not so important as it might at first appear. This subject must be duly considered before venturing very far in electrotherapeutics. It is a question belonging essentially to electrophysiology, and it is but reasonable to suppose that any physician has made himself familiar with his electro-physiology before advancing far in electro-therapeutics. In this connection, it is proper to add that the effect of electricity in acting upon the tissues and producing changes in the human body is not unlike the action of drugs, *i. e.*, it manifests a primary and secondary action upon cell life and in modifying the functions of organs. To know when the one or the other may be produced, we must have had extensive experience, and these are at this time open questions. That we produce an electrotonus and catelectrotonus at the respective poles, is not a question, but that greater changes, in a therapeutic aspect, will follow the one or the other pole uniformly is decidedly a question. In attempting to restore tonicity by stimulating the nutritive changes, is the chief aim, but I have observed very little difference in the use of poles when confined to this action. When well defined clinical rules are not at command, the physiological laws must ever be our guide. Drugs are useful, but in regard to which I have nothing new to offer. Our treatises are ample in marking out the use of agents of this character.

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[LXV.]

VOMITING OF PREGNANCY.

BY FINLEY ELLINGWOOD, M. D., MANTENO, ILL.

In much the larger majority of the cases of vomiting of pregnancy which come under the observation of the general practitioner, various agents are recommended as useful, and the results of their use are in many cases satisfactory. Among these may be mentioned the oxalate and the nitrate of cerium, hydrocyanic acid, pepsine in various combinations, calumba, bismuth, wines of ipecac, and others. But occasionally, a physician will meet with a case of this character, where all agents are nugatory; the difficulty refusing to yield, however much care may be exercised in the prescribing or administration of them. Such a case came under my observation, and I report it here as containing some points of interest in the treatment of this particularly obstinate, and sometimes fatal, sympathetic malady.

During the early part of the month of April of last year, I was consulted by Mrs. S., aged about thirty-three years, then but two months pregnant with her fourth child. She informed me that in each of her previous pregnancies, the vomiting had been so great and had kept her so reduced that she was confined to her bed the most of the time during the last six months of each term. And that the suffering had been so extreme notwithstanding she had received the best of treatment; that rather than endure the same for the coming months of the pregnancy, she expressed herself as anxious that I should relieve her of the foetus. In this her husband heartily concurred.

I told them that if I found the difficulty would not yield after a reasonable treatment, and at any time actually compromised her life, that then I would take the matter into consideration with a consulting physician, but not before. She even at this time was much reduced by the excessive vomiting, and inability to retain nourishment of any character.

I began a most active treatment and kept it up for about six weeks, thoroughly testing many of the agents usually prescribed, without the least permanent effect. The difficulty

assumed an alarming character in its influence upon my patient's health, and I became convinced that something must be done immediately.

At this juncture, I remembered having read in Braithwaite's "Retrospect" of 1875, a report by Dr. Copeman, of the British Medical Association, of three cases of this malady which he had relieved completely by carefully dilating the os uteri. I immediately determined, in the exigency of the case, to adopt Dr. Copeman's plan in the treatment of my patient.

Accordingly, on May 26, I made an examination, found the os sufficiently patent to admit the end of my finger. It was considerably puckered and somewhat irritable, but easily dilated. I dilated it as much as I could without using too much force, smoothing out all the wrinkles, and leaving the *os ani* and cervix smooth.

I was somewhat alarmed, upon removing my finger, to find it covered with blood, fearing that I had carried the dilatation too far. I enjoined quiet and a recumbent position, and left her. For the next two days, there being no perceptible change in the condition of my patient, she took two or three doses of hydrocyanic acid preparation, which she had taken for a couple of weeks previously with no effect, when the condition became suddenly relieved, and she was restored to perfect health, and went on to the end of the term. I delivered her of a healthy, vigorous child, after a confinement of only four hours. She informed me that all her previous confinements had lasted at least twelve hours. Whether or not this last fact is significant, I am unable to say, as several cases have come under my observation, where a certain degree of irritability continued until the end of the term, ending in a comparatively easy confinement.

I am convinced that in this case the cause of the irritability was removed by the dilatation, and that the evidence only, of the irritation, was relieved by the acid, as it had produced no effect previous to the dilatation. This method of treatment can be adopted with comparative freedom, as I think that in no case the dilatation need be carried to an extent sufficient to cause the patient to abort, although I think it necessary,

however, that caution be exercised, and if premonitory symptoms are discovered, rest must be advised in a recumbent position, and perhaps the exhibition of approximate agents such as the viburnum Prun. will ward off the impending attack.

I do not possess any great degree of confidence in the treatment of this disorder directed to the stomach alone, as the difficulty, being sympathetic, it is patent to a careful observer that the treatment should be directed to the cause, and not to the effect of the malady.

SELECTED.

Antagonism of Medicines.

A REPORT ON ADVANCES IN MATERIA MEDICA AND THERAPEUTICS
BY EDWARD T. ROBINSON, M. D.

Read before the Medical Society of Virginia.

No system yet introduced of studying therapeutics has promised more satisfactory results, than the investigation of drugs in their antagonistic relations to each other. Fothergill hails the scheme with enthusiasm, and has written a most interesting essay of 157 pages, recounting, briefly, the results of the labors in that direction. He introduces the subject as the youngest born of the therapeutic family, and predicts that it will become, in its manhood, the most active and vigorous of the group.

The studies in this connection were begun with *belladonna* and *opium*, which, for several years, in a great measure, monopolized the general question. The brilliant results that have attended the investigation of these two drugs—especially the light thrown upon the former—are well known to the profession generally.

The talent and zeal of such workers as Fothergill, Ringer, Bennett, Browne, Leibrich, Frazier, Wood, Bartholow, and many others, both in Europe and America, are pursuing the same line of experiment with other drugs, and the most encouraging results reward their labors. Among the drugs that are more especially engaging attention at this time may be

mentioned: Calabar bean and nux vomica, nux vomica and chloral hydrate, bromine and opium, calabar bean and belladonna, belladonna and jaborandi, chloroform and nitrate of amyl, digitalis and aconite, digitalis and opium.

This system of investigation has already, though still in its infancy, contributed largely to our practical knowledge, not only in the domain of toxicology, but in ordinary practice, by the accurate therapeutical classification that these potent agents are receiving, which will lead to a bolder and more rational application of them in disease.

No physician who would keep up with the advances of his profession can afford to disregard this interesting departure from the antiquated empirical method, which has held therapeutics bound these many years. What the antagonism of therapeutic agents teaches, can more fully be seen by the study of Dr. Fothergill's essay, before alluded to; and I earnestly recommend this book to all who have not read it.

It is a subject of congratulation that the provisions of the "*vivisection bill*" that threatened to become so dangerous to scientific interests in Great Britain, arresting the pursuance of these and other scientific investigations in that part of the world, where hitherto they have received perhaps their greatest encouragement from men of science, has been finally disposed of by its defeat in both houses of Parliament.

Materia Medica.—Within the last year or two, the contributions to the list of materia medica have been large. Among these novelties, a few possess valuable therapeutic properties; while the greater portion are mere novelties or old remedies revived, which will be classed as worthless as soon as they cease to pay the unscrupulous advertiser who recommends them to the over-credulous of our profession and to the public, by the most exaggerated statements of their wonderful virtues. To burden this paper with an enumeration of them, in my judgment, would be foreign to my subject. True advance is shown only after the agents suggested have been duly investigated by trustworthy and intelligent seekers after truth, and have been found efficacious in disease. Of such, I will briefly allude to—

Araroba, or Goa Powder—a Brazilian product, which came to the attention of the medical world through its efficacy in the Portuguese colonies, in Africa and Asia—places noted for the inveterate character of many loathsome skin diseases—as a remedy particularly for psoriasis. It has been examined chemically by Professor Attfield. He discovered its active principle to be *chrysophanic acid*. The crude powder, as well as its active constituent, are now well indorsed as valuable medicinal agents, and the range of its usefulness much extended.

It is interesting to observe that our common *yellow dock*—"rumex"—that has enjoyed a certain amount of reputation among domestic remedies as a remedy for cutaneous diseases, such as ringworm, itch, etc., is found to be rich in this same chrysophanic acid. A hint is here given to our country practitioners to utilize this indigenous plant in their practice.

Thymol—obtained from oil of thyme—has become a popular antiseptic and disinfectant. Perhaps no greater praise has been awarded to it than that arising from the fact that it is one of the few new remedies that meet with approbation in the pages of the *National Dispensatory*, last edition. As a remedy, it has the advantage over carbolic acid in its not being irritating or corrosive to the tissues of the body, and in possessing an agreeable odor; and it is said to be not inferior to it in its disinfecting properties. These advantages entitle it to a place in our materia medica. An ointment of it (30 grains to the ounce) is recommended as a substitute for obnoxious tar ointment, in all cases where the latter might be efficacious.

Ethylates of Sodium and Potassium, recommended by Dr. Benjamin W. Richardson, of London, appear to be valuable caustic agents. In the year 1870, Dr. Richardson, at a meeting of the Medical Society of London, read a paper on this subject; and again in the *London Lancet* (American edition) July, 1879, he calls the subject to the notice of the wider circle of medical practitioners.

Sodium Alcohol, or Sodium Ethylate, is prepared by simply treating absolute alcohol with metallic sodium. As thus

obtained, it is in the form of a thick, white product. It is a most convenient caustic. Laid on dry parts of the body, it is comparatively inert; but so soon as the parts to which it may be applied give up a little moisture, its caustic action can be observed. Its action may be developed so gradually as to be hardly perceptible, or increased, by the intelligent use of it, to the most potent caustic effect.

The *sodium salt* is recommended more particularly for general use, from its being a milder caustic than the potassium salt. For practical use, it is recommended for destroying morbid growths that are not favorable for excision by the knife. It may be used either externally or by injection into the morbid tissues. When the pain is felt to be too great a degree, or when its caustic action is too pronounced, it may be quickly checked by a few drops of chloroform, which decompose it into an inert chloride salt and an ether.

Dr. Richardson has used the ethylates repeatedly in his practice, with much success, and recommends them chiefly in three forms of disease, viz.: Cutaneous nœvus, lupus and malignant ulcer. The remarks of Dr. Lauder Brunton, before the Medical Society of London, and published in the *Lancet*, January, 1879, are very interesting in the report of several cases of nœvi, treated most satisfactorily with this remedy.

(The following notes on the two new *myotics*, eserine and pilocarpin, and on the new *mydriatics*, duboisine, are kindly contributed by Dr. Joseph A. White, of Richmond:)

Eserine is one of the alkaloids of the calabar bean (*physostigma venenosum*), and was first introduced into ophthalmic practice by Prof. Lagueur, of Strassbourg, in 1875. It is most commonly used in the form of a neutral salt—the *sulphate of eserine*. A one per cent solution (about four grains to the ounce of water), if dropped into the eye, produces contraction of the pupil, spasm of the ciliary muscle, shortening of the range of vision, and a decrease of the radius of corneal curvature. It is, therefore, a *myotic*, and its local effects are antagonistic to atrophine and duboisine. Although it sometimes irritates the conjunctiva, I do not think it ever produces any constitutional symptoms.

As a local application, it has been used in corneal ulceration, more especially in the peripheral form, with tendency to perforation; in abscess of the cornea; in corneal suppuration following cataract extraction; in keratocomus; in commencing sympathetic irritation; in paresis of the accommodation, and in some forms of glaucoma, with very favorable results.

In keratitis, it has not developed any specific action, and in glaucoma, has disappointed the expectations that were at first formed of it as a curative means in this affection. In the acute form, it has, in some few cases, seemed to arrest the disease; in the sub-acute form, it is a palliative measure that may be resorted to as preparatory to the iridectomy; but in neither form can it take the place of this operation. In chronic glaucoma, it may be positively dangerous, because of a tendency it has shown of bringing on acute attacks.

Pilocarpin is the active principle of *jaborandi* (*pilocarpus penatilfolius*), which was discovered by Mr. Hardy, and introduced into ophthalmic practice. Its two salts—the *muriate* and *nitrate*—are both used, but more especially the former. Its local application causes contraction of the pupil, and increased secretion of the lachrymal gland, and, by absorption, may produce some of its constitutional effects. These are profuse perspiration, ptyalism and slight nausea, and, in larger doses, vomiting, pain in abdomen and genitals, with general prostration.

As, when administered internally or hypodermically in such doses as do not produce the violent physiological effects, it improves the peripheral circulation, decreases the temperature of the body, and causes vascular depletion of the eye, it is a valuable remedy in treating irido-choroiditis, sympathetic irido-cyclitis, in choroiditis exudation, in opacities of the vitreous, in retinal detachment, in glaucoma and in commencing atrophy of the optic nerves. In fact, some claim that it is almost a specific against commencing atrophy.

Locally, it is used in rheumatic and serous iritis, and in specific rheumatic keratitis. As a myotic, it is inferior to eserine, as the latter produces no unpleasant effects bey-

occasionally some irritation of the conjunctiva. For local application, a one per cent solution (about four grains to the ounce of water) of the muriate of pilocarpin is most commonly employed. Hypodermically, I have administered it in doses varying from one-sixth to one-half of a grain daily, according to the susceptibility of the individual to its influence, always regulating its administration so as to stop short of nausea and vomiting, as the perspiration, ptyalism and reduction of temperature are sufficient manifestations of its physiological action. In some patients, I have seen it followed by profuse perspiration without ptyalism, and *vice versa*.

Duboisine, the latest remedy in ophthalmic therapeutics, is the active principle of the *duboisia myoporoides*, an Australian plant of the family of *Scrofularicees*. The alkaloid was first obtained from the plant by Gerhard, of London.

Its action is very similar to atropine, but more powerful. It therefore belongs to the class of *mydriatics*, and is antagonistic to eserine and pilocarpin.

It is used in the same class of cases as atropine, but is superior to the latter, inasmuch as it dilates the pupil, and paralyzes the accommodation more promptly; its effects are less lasting, and it does not irritate the conjunctiva. From this latter property, it is indicated in cases which show an idiosyncrasy against atropine.

It also has the power of dilating the retinal veins; and further investigation of this property may show it to be a very valuable remedy in some affections of the fundus oculi. In rare instances (as reported by Dr. Seeley, of Cincinnati), when a strong solution has been used too continuously, it has produced vertigo and drowsiness.

The strength of the solution for local use is from two to four grains to the ounce.

All these remedies are very high priced, and have not yet come into use; and although many experiments have been made as to their applicability, their exact value as therapeutic agents has not yet been determined.—*Virginia Medical Monthly*.

Boracic Acid—A New Remedy in Eye Diseases.

BY SAMUEL THEOBOLD, M. D.,

Surgeon to the Baltimore Charity Eye and Ear Dispensary; Ophthalmic and Aural Surgeon to St. Vincent's Hospital, Baltimore.

It is with much pleasure I hasten to bring to the notice of the medical profession, and more especially to the attention of those engaged in ophthalmic practice, the astonishingly favorable results which I have recently obtained in the treatment of certain affections of the eyes, from the use of boracic acid, an agent which, so far as I am aware, has not been heretofore employed in ophthalmic diseases.

Boracic acid, which, until Lister brought it into notice as an antiseptic, was little used except in the manufacture of biborate of soda, is a mild astringent. A solution containing four grains of the acid to an ounce of water—which faintly reddens litmus-paper—when shaken in a test-tube with an equal quantity of the white of an egg, produces but a slight coagulation of the albumen; and even a saturated solution* acts much less energetically in this respect than does a one-grain solution of sulphate of zinc. Its antiseptic properties, according to Lister, are not so great as those of carbolic acid; nevertheless he recommends it in certain cases, because of its being less stimulating to the tissues.

In an article upon the "Antiseptic Treatment of Suppuration of the Middle Ear," published in the *Archiv für Ohrenheilkunde*, Vol. XV, Part I, Bezold described the excellent results which he had obtained in this affection from finely powdered boracic acid, applied by insufflation to the external auditory meatus. An abstract of this paper, which appeared in the October number of the *American Journal of Otology*, came to my notice some weeks since, and induced me to experiment with the new remedy. The results which I obtained in a number of cases of otorrhœa were not less favorable than those which Bezold had reported; they led me, however, in one respect to a different conclusion. He placed but a poor estimate

*At 72° Fahrenheit, an ounce of distilled water will dissolve twenty grains of the acid; in hot water it is more freely soluble.

upon the efficacy of *solutions* of the acid, deeming it as essential that it should be used in *substance*; whereas I obtained, in some cases at least, such very excellent results from solutions, varying in strength from five to ten grains to an ounce, as to induce me to place a higher estimate upon their value.

The prompt manner in which purulent discharges from the mucous membrane of the tympanal cavity were checked by these solutions, suggested the idea that where similar discharges from the conjunctiva existed, equally good results might be obtained from their use as a collyrium. The first point to be ascertained, whether the eye would be unduly irritated by the application of the acid, was soon settled, and in a most satisfactory manner—a *four-grain solution when dropped into the eye was found to cause absolutely no irritation*. Even where a half-grain solution of sulphate of zinc gave rise to considerable smarting, the boracic acid induced not the slightest discomfort. A case of purulent ophthalmia, under my care at the Baltimore Charity Eye and Ear Dispensary, afforded an excellent opportunity for further experimentation. When this case came under observation—the disease having been allowed for three weeks to run its course unchecked—a threatening corneal ulcer was present in each eye, while the purulent discharge was still as great as ever. Fearing, because of the condition of the cornea, to use a stronger astringent solution, I had at first given a collyrium, to be applied four times a day, containing half a grain of nitrate of silver and one grain of atropia to an ounce of distilled water, which was well borne, but produced only slight diminution in the discharge. The proportion of nitrate of silver, therefore, was doubled; but in this strength, though it further checked the discharge, it caused so much irritation that I could use it but twice a day, alternating it with one-grain solution of atropia.

Under this treatment the disease was slowly subsiding, the ulcers becoming less threatening, and the discharge less profuse; nevertheless, at every visit I found it necessary to remove a great quantity of purulent secretion from the eyes, in order to obtain a view of the cornea, and the palpebral conjunctiva was still swollen and villous.

It was at this stage, after three weeks' use of the nitrate of silver, that the boracic acid was employed. Giving a solution containing four grains of the acid and one of atropia to an ounce of distilled water, I directed it to be dropped into the left eye (in which the ulcer was more completely healed, though the discharge was not less profuse, than in the other) three times a day, in place of the nitrate of silver and atropia, which, however, was to be used as before to the right eye. This was on Monday. The case was next seen on Wednesday, when, in response to my question as to how the eyes were getting on, the reply was: "One eye is a great deal better." And so it certainly was. To my great satisfaction the left eye was found to be entirely free from discharge; not a particle of pus, or even of mucus, could be discovered within the palpebral aperture, while the corneal ulcer was healing nicely, and the conjunctival swelling had greatly diminished. The other eye had changed but little, and still contained as much pus as before. The same treatment was now ordered for it. During the next two days, however, the patient—a wretched little specimen of illegitimacy, but half-nourished because of the illness of its mother—took a bad cold, which came near putting an end to its existence. The consequence was, that on the following Friday, although there was a decided diminution in the discharge from the right eye, the left eye was not so well, and contained a small amount of mucopurulent secretion. Nevertheless, in spite of this drawback, and an attack of thrush which next supervened as a consequence of improper feeding, the inflammation of the eyes rapidly declined under the influence of the acid, which caused not the slightest irritation; so that in three or four days the swelling of the lids and conjunctiva had entirely disappeared. At the expiration of a week, as a slight blennorrhœa still persisted, and the ulcers had so far healed as to give rise to no further anxiety, I ventured to increase the proportion of boracic acid in the collyrium) which was still being used three times a day, to eight grains to an ounce. This caused no irritation, but as a slight mucous secretion persisted after several days, it occurred to me to discontinue the atropia,

which up to this time had been combined with the acid. The change was immediately beneficial, and in twenty-four hours the secretion had nearly ceased. The case is still under observation, the drops as yet being used; but the subject of it, barring his eyes, is in so wretched a condition that I fear he will not live to enjoy the excellent vision which has been saved to him. Should, however, his fate be an early demise, he will hereafter, doubtless, derive additional enjoyment from a consciousness that his mundane existence, though brief, was not altogether in vain.

The next case in which I tried it was that of a boy, thirteen years old, the subject of inherited syphilis, who, while under treatment for an obstinate and severe sclero-keratitis of specific character, was attacked with a catarrhal conjunctivitis. After having satisfied myself that this was not produced by the atropia which was being used, I had tried in succession mild solutions of sulphate of zinc, alum, and nitrate of silver, but each with no appreciable benefit. The conjunctival inflammation seemed to be rendered peculiarly obstinate because of its association with the more serious corneal and sclerotic affection, so that, in spite of the various astringents which were employed, the catarrhal condition persisted, and I invariably found upon eversion of the lower lid an accumulation of mucus in the retro-tarsal fold.

After this treatment had been persevered in without effect for six weeks, a two-grain solution of boracic acid was given, to be dropped into the eyes three times a day. It caused no irritation whatever, and when, after two days' use of it, the eyes were examined, the catarrhal inflammation had disappeared, and I sought in vain for the usual accumulation of mucus. Although it is now being used but twice a day (the case being still under observation), there has been no return of the conjunctivitis; but, on the contrary, so rapid and decided an improvement in the sclero-corneal inflammation, which before had changed but little from week to week, as to convince me that upon this also it has exerted a decidedly beneficial influence.

After this, I began with more confidence to make use of the new remedy. Even a saturated solution when dropped into

the eye, I found, although it gave rise to a constringent sensation analogous to that which alum produces in the mouth when tasted, caused only a very slight momentary smarting, accompanied by a trifling injection of the conjunctival vessels, which disappeared in two or three minutes. The two and four grain solutions not only occasioned no irritation, but when an irritation previously existed, produced a decidedly grateful sensation, which was described as soothing and cooling.

Among other cases in which I have since used it, the following may be briefly mentioned as illustrating its action, and as indicating the different conditions to which it seems applicable :

A patient, one of whose eyes I had enucleated four weeks previously, was much annoyed by an excessive secretion of mucus from the conjunctive sac as soon as he began to wear an artificial eye, and this in spite of his having used for some time before a four-grain solution of alum. A solution of boracic acid of the same strength was ordered to be instilled two or three times a day. He used it only twice a day, but in twenty-four hours the discharge was greatly diminished, and in two days was so far checked as to give him no further inconvenience.

In two cases of myopia, complicated by astigmatism, in which, in spite of the use of correcting glasses, asthenopia persisted, accompanied occasionally by conjunctival hyperæmia, the acid is now being used with decided benefit—in one a four-grain, in the other a two-grain, solution, in order to compare their action. In each a one-grain solution of sulphate of zinc had previously been tried, and abandoned because of the irritation which it produced ; while in one alum, acetate of zinc, biborate of soda, and acetate of lead, had likewise been used without benefit. The case in which the four-grain solution is being used is that of a young lady, seventeen years of age, who, as she is completing her last year at school, and is a hard student, has exacted of her eyes during the past three months an undue amount of day and night work, and, as a consequence, has suffered much with asthenopia attended by congestion of the lids and conjunctiva. Since using the acid,

her eyes have looked and felt much better, and she expresses herself as greatly pleased with its action.

An acute conjunctivitis of catarrhal type, attended by an unusual amount of irritation, in a lady about forty years of age, in which a one-grain solution of sulphate of zinc had done more harm than good, yielded at once to a two-grain solution of boracic acid, each application of which lessened the irritability of the eyes, instead of increasing it, as the zinc had done. In a number of other cases of acute catarrhal conjunctivitis, I have obtained from it equally good results, while in a chronic conjunctivitis, associated with nasal catarrh, it is being used with decided benefit.

In a case of kerato-conjunctivitis of scrofulous character in a little girl, attended by great photophobia and lachrymation, which did not yield to atropia and yellow oxide of mercury, I ventured to apply a two-grain solution of the acid, and finding it produced no smarting or irritation, I added one grain of atropia to it, and directed it to be used three times a day. It was well received, and decidedly lessened the conjunctival inflammation; but, on the fourth day, as the photophobia seemed rather greater, I gave in its stead a four-grain solution of atropia. After two days' use of this, the photophobia was somewhat lessened, but the conjunctival injection increased. A two-grain solution of the acid was then given, to be applied thrice daily, and to be followed by the atropia. In two days the redness had again disappeared, and in four days more the photophobia had gone, and the eye was free from inflammation.

In another case of scrofulous kerato-conjunctivitis, with a large phlyctenula upon the cornea, a solution of the same strength was used in connection with atropia for two days without causing any irritation whatever, when, as the improvement was not satisfactory, yellow oxide of mercury ointment was substituted with advantage.

These two cases are of especial interest as showing how entirely free from irritating properties the acid is, for there is perhaps no condition in which the eye is so intolerant of astringents as in scrofulous keratitis, and had I used in either of these even a quarter-grain solution of nitrate of silver, or a

half-grain solution of sulphate of zinc, the consequences would in all probability have been decidedly unpleasant.

In a patient of strumous diathesis, under treatment for stricture of the nasal duct, a superficial keratitis of the affected eye, accompanied by conjunctival injection supervened, and proved of most obstinate character. Besides constitutional remedies, atropine, pilocarpine, belladonna and opium fomentations, and hot water, had each been tried in vain. Finally, an ointment of iodoform (gr. x. to vaseline, 3 j.) was tried, and under its influence and that of atropia a decided improvement set in; when suddenly, and probably as a result of the long-continued use of the atropia, a catarrhal conjunctivitis appeared. Fortunately, I had by this time learned the virtue of boracic acid, and so, discontinuing the other remedies, I ordered a two-grain solution of it, to be applied three times a day. In three days the conjunctivitis disappeared, and when I next saw my patient, at the end of a week, no redness remained, and the cornea was better than it had been for weeks.

A girl, seventeen years old, with extensive nebulous opacities in the cornea of the right eye, the remains of a severe scrofulous ophthalmia, reported at the dispensary a few days since, suffering from a recurrence of corneal and conjunctival inflammation. She had previously had several such relapses, and they had usually yielded, though slowly, to atropia and yellow oxide of mercury. In this instance, I directed simply a two-grain solution of the acid to be applied three times a day, first, however, instilling a ten-grain solution, which produced no more smarting than as much water would have done. In two days she returned, with the inflammation entirely relieved.

How far the good effects of the boracic acid in the cases I have related were due to its antiseptic properties, and how far simply to its astringent action, I am not prepared to say, though I am disposed, since it is so feeble an astringent, to ascribe them, and more especially its influence over purulent and catarrhal conjunctivitis, in great part to the former. However this may be, I am confident that in the treatment of eye

diseases, boracic acid has open to it a wide field of usefulness ; and unless the results which I have obtained from it thus far prove to be exceptional, I believe it will, ere long, obtain a position in ophthalmic therapeutics second only to that of atropia. To those who are sufficiently familiar with this department of surgery to appreciate the immense advantage which will accrue from the possession of an agent capable of arresting purulent and muco-purulent discharges from the conjunctiva, and yet so bland in its action as to cause no irritation, even in phlyctenular keratitis, this prediction will not seem unreasonable.

The affections to which it seems especially adapted are : Purulent conjunctivitis, including gonorrhoeal ophthalmia, and ophthalmia neonatorum ; catarrhal conjunctivitis ; asthenopia from whatever cause arising, and the conjunctival hyperæmia which usually accompanies it ; and, I think I may add, granular conjunctivitis, although it so happens that I have not yet had an opportunity of testing it in this condition. In phlyctenular ophthalmia, atropia and yellow oxide of mercury in most cases leave little else to be desired, but when the inflammation is chiefly conjunctival and somewhat catarrhal in type, these remedies do not always act so well, and in this condition boracic acid will, I think, be found of service. In relieving atropinism, and when used with the atropia in preventing it, it is undoubtedly efficacious. In inflammatory affections of the cornea my experience of its action is as yet limited, but so far as it goes is *decidedly* favorable ; and I would recommend its use in pannus, in ulcerative and suppurative keratitis, and in the various forms of diffuse corneal inflammation. As an adjunct to the probe in the treatment of lachrymal affections, it promises to be of much value. In marginal blepharitis, an ointment containing ten grains of the acid to a drachm of simple cerate. has been of unmistakable service in some cases. And, finally, with boracic acid substituted for carbolic acid, the principles of antiseptic surgery may be applied to the graver operations upon the eye, with a prospect of better success than attended the recent experiments of Alfred Graefe in this direction.

As to the proper manner of employing the acid in the different conditions I have enumerated, much will have been gathered from what has gone before. In asthenopia, in catarrhal conjunctivitis, and in keratitis, I would recommend a solution containing from two to four grains to an ounce of distilled water, giving preference in most cases to the latter strength. As a rule, three or four times a day will be sufficiently often to apply it, but, if necessary, I believe it may be used more frequently with safety. In the different forms of purulent conjunctivitis, and more especially in gonorrhœal ophthalmia, stronger solutions will probably be required; and since even a saturated solution (gr. xx, to ʒj), as I have before stated, causes only the most trivial and momentary irritation, I think it will be better, when the case can be kept under observation, not to trust to one of less strength.

It would be deemed, perhaps, an oversight, should I conclude this paper without alluding to the fact that for a long time biborate of soda has enjoyed an extensive reputation in eye diseases. It so happens that my experience with this salt has not been such as to induce me to place much confidence in its efficacy, and so I have seldom employed it, and, it may be, have underestimated its value. Such virtue as it possesses, I am now sure, is derived from the boracic acid which enters into its composition, and which, through its union with soda, seems to lose in great part its efficiency.

Since the foregoing was written, I have had an opportunity of testing the acid in a second case of ophthalmia neonatorum, in two cases of chronic granular conjunctivitis with pannus, and in three cases of corneal inflammation of traumatic origin. In the first-named, where there existed a profuse purulent discharge, a ten-grain solution was ordered to be dropped into each eye every three hours. In twenty-four hours there was an appreciable diminution in the discharge; in forty-eight it was greatly lessened, and had lost its purulent character; and to-day (this being the fourth since the treatment commenced) the discharge is slight, the swelling of the lids and conjunctiva nearly gone, and the eyes are already out of danger. The child was six weeks old; the inflammation had begun

about the ninth day, and had grown much worse during the few days preceding the inception of the treatment.

In the next two cases, I began with a four-grain solution. In one, this is still being used with decided benefit, in the other, in which an acute attack of corneal and conjunctival inflammation had set in, it had no effect, but a twenty-grain solution which has been instilled thrice daily for the past three days has been well received, and is certainly doing good.

In the last three, the effect of a four-grain solution has in each been surprisingly favorable. (One of them, a stone-cutter, while suffering from a catarrhal conjunctivitis, received a blow from a bit of stone upon the right cornea. After having used atropia for several days, his eye meantime getting worse, he came to me with a decided conjunctivitis, the lower half of the cornea quite misty, and a more opaque spot, with epithelium abraded, just below the center of the cornea, marking the site of the wound. The atropia was discontinued and boracic acid only used. It produced a much pleasanter impression upon the eye than the atropia had done, and in two days the mistiness of the cornea and the conjunctivitis had disappeared.

It is evident that besides the astringent and antiseptic properties which boracic acid possesses, it exerts, when applied to the eye, a topical influence which may be properly termed sedative or anodyne.—*Medical Record*.

Some Thoughts on the Importance and Efficacy of Treatment by Inhalation, and Medication and Sustentation by the Skin.

BY JAMES G. CLARK, M. D., WEST NEW BRIGHTON, STATEN ISLAND,
NEW YORK.

I am fully persuaded that a radical improvement in several respects will take place in the treatment of disease, and that those maladies heretofore so stubborn, and almost beyond the reach of remedies will, most of them, if not all, be brought much more within the control of remedial measures. These conclusions are not the result of mere theorizing, but are founded upon experience and large facilities for observation. I

have been a practitioner of medicine for over thirty-five years, and for twenty-five years did as large a general practice as perhaps any man in the State. Attended several large hotels ; for ten years the Home for Orphan Children of Seamen, and other public institutions. In these years have seen and treated a great amount and variety of disease, and am free to confess that I have often mourned (as doubtless every conscientious physician of extensive experience has) over the inefficiency of treatment in many cases, and that too after having been aided by the most skillful experts within my command. For the past few years have spent a good deal of time in visiting the medical men and hospitals of many of the capitals of Europe ; and the more I see of the methods of managing disease, the more convinced am I of the room for improvement, and that better results should be reached.

The diseases afflicting the human family arise from various causes. Some from poisonous inhalations, many from congestions and inflammations. Some from the ingestion of deleterious substances, and some again from actual contact with disease, etc., etc. In all these there are more or less alteration and vitiation of the vital fluid and derangement of the circulation. Nature, in her efforts to relieve the system, endeavors to throw off the deleterious elements mostly by the skin. The skin, therefore, is one of the most important tissues of the body—perhaps the most important. Is more highly endowed with nerves and blood-vessels than any other, and, as more than half of all that goes into the body passes off by the skin, it will be seen at once that it is a most important, if not the most important, depurating and eliminating organ of the blood-organism. To keep the skin in a healthy condition and have it perform its functions physiologically is of the greatest importance. To assist in eliminating the deleterious elements in disease should be the continuous effort of the physician.

To aid in accomplishing this, I have contrived an air-tight receptacle that will contain the patient, from the cervical region, in the recumbent position. To this is attached an air-pump, by which the desired quantity of air (as indicated by a

gauge) may be pumped from within—the effect upon the surface of the patient being watched through two little glass windows, one opposite the chest, the other the lower part of the lower extremities. There is also an opening in the receptacle through which steam or medicated vapor may be introduced. The effect upon the body, when placed in this partial vacuum, will be readily understood by every one—viz., that the atmospheric pressure being removed to the desired extent, the blood rushes to the surface, the cutaneous capillaries become distended and the surface glowing; internal congestions and inflammations are relieved; poisonous elements circulating in the deeper vessels, disturbing the nervous centers, and impairing the functions of the viscera, are brought to the periphery and thrown off by the pores of the skin, which have been previously opened by cleansing, refreshing and purifying washes (which removes the epithelial debris), and then treated by appropriate medicinal preparations, which readily find their way into the capillaries and go bounding along with the circulation, neutralizing and rendering innocuous whatever is hurtful to the organism. The readiness with which absorption takes place through the skin is well shown by the following case, as also the efficacy of medication by the surface. Some fifteen years ago a babe, three months old, suffering from cholera infantum, and attenuated to the last degree, was brought from the city to the Latourette House, Bergen Point, and came into my hands. Its intra-uterine life had been six and a half months. This was well attested. The little creature was ejecting everything given it; and what to do, at first, was a puzzle—but something must be done, for all the ladies in the house had fallen in love with the little handful of humanity, and if the whole world had contained but this one baby the mother could not have been more anxious for its recovery. So we enveloped it in nice, soft, juicy beefsteaks, renewing them as often as the heat of the weather rendered necessary, preceding their application by a very delicate medicinal solution—giving by the mouth almost nothing—and thus we went on day by day.

The babe recovered, grew strong and well, and four years afterward became again my patient at Peteler's Hotel (now St. Mark's), for a bad scald of the chest, which she went through as bravely as if she had been born at full term and had not had her life saved by beefsteaks externally applied. Another case forcibly illustrating the rapidity with which absorption takes place is given by Sir G. Hill: "A jockey had been for some time in training for a race, in which that gentleman was much interested, and had been reduced to the proper weight. On the morning of the trial, being much oppressed by thirst, he took one cup of tea; and shortly afterward his weight was found to have increased six pounds, so that he was incapacitated for riding. At least three-fourths of this increase was from cutaneous absorption, which function was suddenly stimulated by the cup of tea." I might give many other cases similar to that of the babe's in my own practice, perhaps not quite so marked, but where the result was quite as favorable—fully demonstrating the efficacy and efficiency of peripheral medication and sustentation. Along with this form of treatment by the surface, goes admirably well the introduction of medicaments into the circulation by inhalation. This is a very easy and very powerful way of combating disease. As it is through the air-passages that many pernicious elements enter the system, it would seem very natural that by the same ingress the correctives and antidotes should be sent; and all know how efficiently agents act given this way—as chloroform, nitrous-oxide gas, oxygen, etc.

In many diseases, as typhus and typhoid fever, and the typhoid stage of other diseases, the tongue and mucous membrane become hard, rough, and as dry as a chip. The lining of the stomach is almost in the same condition (for the tongue is the mirror of the stomach), and medicines placed in it are of no avail, for there is no action, no absorption, and they lie there dead and inactive. Now, you might as well place a weasel in a tightly cemented room from which there is no point of exit, and expect it to rid the house of rats, as to expect medicines placed in the stomach, under these circumstances, to have any controlling or curative influence over disease; and

yet this is just what is done over and over again, indeed all the time, by physicians of every school everywhere. Not so do medicines act when given by inhalation; for, carried to the delicate vesicular membrane in thorough solution, they quickly enter the circulation, and, unimpeded by any action of the gastric juice, commence their neutralizing and curative work at once, and if properly and judiciously administered in conjunction with the use of the vacuum receptacle, and proper applications to the surface, I am sure that many diseases that are now the opprobrium of the profession will be rendered much more amenable to treatment. Of course there are many affections that readily yield to treatment by the stomach. Indeed, I believe that one-half of all the ailments to which humanity is liable may be controlled by the "*vis medicatrix naturæ*" alone, and would get well without any treatment further than the proper regulation of diet and exercise. Then, again, there are some affections in which all remedies by the stomach are at times wholly inefficacious, even when that organ is in a good working condition. I remember a striking case of this sort in a young lady suffering from ovarian neuralgia, which came on regularly every morning, and was very severe. I used everything in the way of anti-periodics, anodynes, counter-irritants, etc., that I thought applicable to the case, but with no apparent permanent good result. The father, tired of seeing his child suffering so, took her to a famous homœopath in the city, and he encouraged them greatly by saying that the trouble was not ovarian, but in the kidney, and that he'd make short work of it; but he was longer at the case than I was, and no more successful—when the electro-chemical baths were suggested, the first one of which brought entire relief. I had at one of the hotels a somewhat similar and severe case, in the management of which were associated with me three of the best physicians from the city, and in this case, too, medicines had only a very slight temporary effect. The cure was effected quickly and permanently on the ninth day by electricity. While I think this treatment applicable in most cases, it is more particularly so in those of internal congestions and inflammations, in eruptive and congestive fevers, and impaired circulation.

Take a case of double pneumonia (a disease that for the past few years has been so fatal in New York City), where the patient can hardly breathe from the pressure of the engorged blood-vessels upon the delicate air-vesicles and capillary bronchial tubes, and is being rapidly poisoned by the circulation of unaerated blood—can a more powerful method be conceived of for drawing away the blood and unloading these pulmonary vessels, than by placing the body in this vacuum receptacle and diverting the circulation to the surface, when the lung-tissue, being relieved from pressure, air can be admitted, and medicaments and oxygen by inhalation? What, think you, are the chances for the patient thus relieved, as compared with his chances under the ordinary treatment?

The poison of scarlet fever is so deadly sometimes that it will destroy life in twenty-four or thirty-six hours. This I have seen more than once, and mourned over the helplessness of our art to save the beautiful child. Here, again, what could so powerfully and certainly bring the blood to the surface and expel the poison through the proper outlets?

Take paralysis dependent upon a clot in the brain; what process could so quickly and surely lessen the pressure and hasten the absorption of the clot as this?

Take typhus or typhoid fever, or the typhoid stage that any disease may run into, or the various forms of nervous affections so prevalent just now, dependent mostly upon engorgement about the nervous centers, causing cold hands and feet, and a morbid sensitiveness to low temperatures; or take chills and fever (the curse of so many localities), the essential conditions of the chill being a small, hard pulse, peripheral anæmia, and convulsive muscular contractions caused by a congested condition of the deeper blood-vessels containing more or less malarial poison acting upon the nervous centers—and does not this treatment present itself as foremost and infinitely superior to the large deafening doses of quinine, or the new and lately more fashionable, but dangerous remedy, pilocarpin, which relaxes arterial tension, causes a determination of blood to the surface, and, by the diaphoresis induced by it, brings about muscular relaxation—all which the vacuum receptacle

will do with more certainty and without danger. I might go on in this way for an indefinite time, but am persuaded that the simplicity, efficiency and practicability of this form of treatment are apparent to every one who will reflect for a moment, and must be admitted by all. I do conscientiously believe that by the inhalation of medicaments, carefully prepared and judiciously administered—by the application of medicaments, carefully prepared and properly applied, after the skin has been well cleansed (all dead epithelium being removed), together with the use of the receptacle, a new era in the treatment of diseases will be inaugurated, and a success attained in the curing of the graver maladies that will surpass anything yet realized.

It has often occurred to me that the importance of atmospheric pressure, as affecting the health and general condition of mankind, is not sufficiently estimated. I believe with a celebrated writer, who said: "Give me the physical aspect of the country, and I'll give you the character of the inhabitants." And he might have added, the physical development also. All know that elevated situations for habitations are much healthier than those in the valley or low places. Some will say because the air is purer, and in this they are correct so far as they go; but it is well known that as we ascend, the atmospheric pressure lessens, and if we go high enough this will be unpleasantly demonstrated by blood issuing from parts of the body. When a suitable elevation is reached, the peripheral circulation is much increased; the action of the lungs is freer and fuller, and a feeling of exhilaration is experienced from the improved oxygenation of the blood. Therefore, how infinitely better it would be for the health of the denizens of cities to pass their summers among the mountains, than at the crowded places of fashionable resort! What a marked improvement there would be, not only in their physical, but in their mental condition (to say nothing of morals), in the course of two or three years' living rationally, exercising judiciously in the fine, exhilarating mountain air! One of my patients, who suffered much from asthma, spent a winter at the Fifth Avenue Hotel. After a little, he discovered that he could live

much more comfortably, with much less dyspnoea, on the fifth floor than any lower down—and here, of course, he fixed his quarters. With the lessening of the surface-pressure his peripheral capillary circulation was increased, and his lungs correspondingly relieved. How large a number of persons suffering from lung trouble have been greatly benefited by living in the Adirondacks! One occasionally being obliged to remain there throughout the winter, as was the case with a physician of some note, who, while remaining in those mountains, enjoyed fair health; but each time, on coming to the city and remaining a short time, would have hemorrhages, night-sweats, and all the symptoms of rapid tuberculosis, rendering his flight to the mountains, and remaining there, imperative. Doubtless the importance and benefit of keeping the skin of animals in good condition is patent to all, for no animal will thrive and do well unless this be the case.

For many years, I have been a strong advocate for the clipping of horses, and invariably have it done every winter on every horse whose hair is too long and thick to admit freely of the brush and curry-comb reaching the skin. Some years ago, I had a horse who threw out early in the fall a very thick, heavy coat. Soon the legs began to swell, which increased daily, notwithstanding the giving of purgatives, diuretics, and free rubbing, all which were resorted to, as I did not want to clip so early; but all of no avail. The horse was clipped. A greasy scum all over his skin (which the comb and brush could not reach) was removed by a wash of whisky, water and borax; and now, after a drive, all swelling was gone and did not return—and in eating, driving and feeding he was a new horse.

Clipping the horse when the hair is coarse, thick and long is the very best thing that can be done, for he will do a third more work on a third less feed, and it is a merciful and not a cruel procedure. I also recommend the clipping of cattle that are being fattened, where the hair is long and coarse, believing—indeed, knowing—that such cattle would fatten much easier, and the meat would be more tender and much sweeter.

In a word, I have long been impressed with the belief that not a tithe of the attention to the condition of the skin in disease, and what may be effected by medication and sustentation thereby, is given by physicians, and, until this is done, the success that should be attained will not be reached.

True, Europe has its mud-baths; and Philadelphia its mud-poultices; and we have Turkish baths and Russian baths, and all kinds of baths, and all are good as far as they go; but, to our mind, repeated daily thorough cleansing of the skin by medicated washes, and the insuring a free peripheral capillary circulation, are the prime essentials in the treatment of disease.—*The Medical Record*.

Inversion of the Uterus in a Girl, Presenting Singular Features.

BY R. W. NELSON, M. D., CHARLOTTESVILLE, VA.

I wish to present the history of a case of inversion of the uterus, rare under any circumstances, but especially interesting in this case, as it occurred in a girl who had never been pregnant, and had never had any polypus or other growth connected with the womb.

On October 13, a colored girl was brought into my office by her mother, who stated that her daughter was suffering with uterine trouble, and that something was actually protruding from the vulva. On examination, the protruded mass was found to be the uterus, which was almost completely inverted, or I think I might, with more propriety, say *everted*.

The girl was eighteen years of age, of medium size, fairly developed, and apparently in good health. She had never suffered from menorrhagia, and had, indeed, always been regular in this respect. She menstruated last on August 28. I could get no history which threw any light on the time or mode of occurrence of the inversion.

The uterus projected so far that the vagina formed only a shallow sulcus, just within the labia minora. The inversion was complete, except for a shallow pit at the fundus, which was less than a half-inch deep. A circular abrasion was

observed near the fundus, which I thought was probably occasioned by the rubbing of the clothing against the prolapsed mass. With this exception, nothing abnormal was discovered in the condition of the mucous membrane—although the examination was made by gas-light. The fore-fingers of the right and left hands could be passed just inside the labia minora on each side, and then approximated above the inverted uterus, and only the vaginal walls intervening between the finger tips were felt. The muscular tonicity of the organ seemed completely lost—having to the finger the feeling of a piece of wet felt.

In this instance, inversion must have occurred, as suggested by Prof. J. E. Taylor, "beginning at the cervix—this part undergoing eversion as in prolapsus, and thus going on to complete inversion of the entire organ." "In previous literature"—I quote from Thomas—"allusions to the possibility of inversions after this method may be found. Klob alluded to it in these words: 'A very remarkable class of cases of inversion are those in which, without efficient cause, an inversion of the cervix takes place into the vagina, drawing the fornix of the latter with it, and thus forming a polypus-like tumor in the cavity of the vagina, which may reach down to the vulva, at the lower part of which the internal orifice is situated.'"

A very striking case was published by Mr. William Lawrence, in the *London Medical Gazette*, December 5, 1838, under the head of "Spontaneous Partial Inversion of the Uterus;" but the credit of having drawn proper attention to the subject, and having proclaimed its probable pathological bearings, unquestionably belongs to Taylor.

To remedy the displacement in my case, I gently grasped the tumor, and readily returned it within the vulva; then by pressure with the fingers, aided by a large-sized, round-pointed catheter, I pressed against the fundus, and the displacement was corrected. For want of a better appliance, Hodge's open lever pessary was introduced, and the patient sent home and put to bed.

The next day, the os and cervix were so much relaxed that the fore-finger could readily be passed up to the fundus. The

pessary was removed, and the astringent applications and the hot douche were used.

On the fourth day, my friend, Dr. W. C. Dabney, visited the case with me, and a very thorough examination was made, both with the finger and with the speculum. The uterus was still very much relaxed, and the lips were gaping so widely that the os internum was where the os externum should have been; and the arbor vitæ structure of the cervix was plainly visible. The os and cervix were inflamed, and granulations surrounded the os internum. The hot douche, along with local applications of nitrate of silver or tincture of iodine, were determined upon, and the following pill was directed three times a day :

R. Ext. nux vomica.....gr. $\frac{1}{2}$
 Solid ext. ergot.....
 Sulphate of iron (dry)... $\overline{\text{m}}$ gr. j—M*

So far as I am aware, none of the recent writers on gynæcology, with the exception of Thomas, and possibly Barnes, refer to inversion, except as a result of labor or morbid growths.—*Virginia Medical Monthly*.

The Electric Light Perfected.

There are various reasons, as we shall presently show, for causing the medical profession to take a deep interest in the progress of Mr. Thomas A. Edison's labors to perfect the electric light; and, in view of the conflicting opinions expressed by the daily press and some scientific authorities, we have taken steps to present our readers with a reliable statement of the actual results obtained by Mr. Edison, prepared by one of our staff, who made a personal investigation at Menlo Park on behalf of the *Medical Record*.

The form of the new electric lamp is very simple, and can be well understood without diagram. It consists of a glass globe two inches in diameter, and a glass tube four inches long

*As we are going to press with the above report, we have a note from Dr. Nelson, stating that under the treatment above described, his patient has entirely recovered, and has resumed her avocation—that of house-servant.—EDITOR.

and one inch wide, tapering toward the bottom. The globe is attached to the top of the tube, which, in its turn, is fastened to a burner. The interior is also very simple and devoid of all mechanism. In the globe is seen a loop of paper carbon, the thickness of stout black cotton, supported by two metal standards.

To use the lamps, they are placed in little cups, which replace the gas nib on the chandeliers, and are dropped in as a glass stopper in a bottle. There is no trouble of tying wires, as it is so arranged that the act of placing the lamp in position at once connects the lamp with the central station, where the electricity is generated.

This new form of electric light, as seen by us, burns with a steadiness which appears almost absolute. In four hours it was observed to make but one movement, which was instantaneous, and as new generators were used for the first time, which had never been tested, perhaps this single instance was caused by some change of the machinery at the central station.

Each lamp is arranged to give the same quantity of light as an ordinary gas-burner, but from our observation the illuminating effect was increased, due apparently to the great dispersive power of the light and its purity. All parts of the room are equally illuminated, and the general effect is that of a room lighted with a good supply of the best gas. With opal shades on the chandeliers, with the new electric light it would be barely possible to decide if gas was used or not.

When used without shades, and held within a yard of the face, it can be stared at for many minutes without any discomfort to the eye, and appears as grateful to that organ as the light of a wax candle.

Our investigation extended to viewing it as used for domestic purposes in Mr. Edison's house, where, in the parlor, two chandeliers with four burners were doing duty; also in a cottage, where one lamp illuminated a room about 12x16 feet. In the laboratory, we saw it hitched on to conducting wires running in various directions, and in the factory and workshops as bracket lights. Lastly, we observed it as an outdoor illumination, taking the place of gas in ordinary street-lamps.

In one word, the results were in all cases uniform and satisfactory, and the great blazing electric light, with which our minds associates that illumination, was seen toned down to the sober limits of an ordinary gas-jet, diffusing a soft and beautiful light of great dispersive power.

Thus Mr. Edison clearly demonstrated to us that he had solved the question of subdividing the electric light, and had produced an electric lamp suitable for domestic use. The equally important points of the permanency of the paper carbon and the ultimate cost of generating electricity still remain undecided. Experiments with the new electric lamp apparently lead to the conclusion that it is sufficiently permanent for practical purposes. Two lamps have been used, with short intervals, for fourteen days, burning day and night; one lamp was maintained for seven days and nights, with one interval only. We give full weight to the fact that the new electric lamp has been invented but a few weeks, and our surprise is great that it works so perfectly at the start. This appears to show that the principle is right, and if that is so, the rest will follow. We regard the item of cost as one of the least difficulties, because if steam produced by the combustion of coal is too expensive for generating electricity, the now wasted energy of tidal rivers and running streams may be available.

This, the last and most important of all Edison's discoveries, will be the greatest benefit to the medical profession. By simply attaching a couple of wires to the chandeliers, the new electric light may be placed in any position most convenient during clinical examinations; may be held in the hand in close proximity to the patient without fear of fire, heat, or unpleasant odor. The lamp may also be fixed to the back of a chair in any part of the room.

A motive power is also provided, always ready for use, and will be found convenient for many professional uses, and may lead to the introduction of new and valuable instruments and surgical appliances.

The hygienic value of the new electric light will be appreciated by those in charge of hospital wards and large establishments, in which a number of persons are congregated. The

contamination of the atmosphere by sulphurous fumes of gas will no longer be feared, and, with moderate precautions and suitable ventilation, the air of hospital wards may be maintained in a pure and satisfactory condition.—*Medical Record*.

A New and Simple Operation for the Removal of Polypus of the Larynx.

TRANSLATED BY JOHN TASCHER, M. D., CHICAGO.

From Medizinische Neuigkeiten für Praktische Ärzte.

Prof. Voltolini, M. D., of Breslau, described a simple method of removing polypus of the larynx, at the fifth meeting of the International Medical Society at Genf: "It is a fact generally known among physicians that there are certain polypoid growths of the larynx easy of removal—sometimes may be removed at one sitting. There are those which are much more difficult to remove, taking weeks and even months to remove them; it is also a matter of fact that, according to the present mode of operating, a small polypus is the most troublesome to remove. Heretofore, whether the operation was easy or difficult, it fell into the hands of the specialist. I have lately discovered a new method, which has the following advantages: 1. Operations, which were the most difficult according to the old method, are among the easiest, according to my method of operating, *i. e.*, a very small polypus. 2d. The operation can be performed without any preparatory treatment. 3d. Only in the most difficult cases is it necessary that a specialist should perform the operation (in the less difficult cases, any physician of ordinary ability can perform the operation). 4th. The only difficult cases to operate on are those in which it is necessary to use the laryngoscope (in the majority of cases, the operation can be performed without it). 5. It is immaterial whether the polypus is attached to the upper or under side of the vocal cord. My operation is performed as follows: I take a piece of ordinary sponge, well fastened to a piece of malleable wire (the sponge may be softened in water, or used dry, if the polypus is of a fibrinous texture); it is passed into the larynx during inspiration. As soon as introduced, the epiglottis closes firmly upon it.

Now wait until in the next inspiration it is thrown open; this moment is taken advantage of, and the sponge is pushed down through the chink (*rima glottidis*) passing it up and down several times. If the polypus is attached somewhere above the vocal cords, it is not necessary to wait for the inspiratory movement, but simply twisting the sponge in several different directions. In the more difficult cases, the laryngoscope is required to be able to introduce the sponge into the larynx, the use of which you are all familiar with. By drawing the patient's tongue well out of the mouth, and depressing the root of it with a knee tongue depressor, the epiglottis is brought in sight; the sponge is then carefully passed behind it, and through the opening into the larynx. At first, I only used this method in removing soft, spongy polypoid growths, which are easily lacerated and torn off by the sponge. Lately, I have employed it in the removal of polypoid growths of a more solid or fibrinous texture. These are not torn loose at their attachment, but are only lacerated by the sponge, and are afterward sloughed off. In polypoids of this character, the larynx is washed out with the sponge. This is repeated every few days, until the polypus is removed. Not long ago, I removed in this way a polypus, of a fibrinous nature, the size of a bean, attached to the free border of a vocal cord—a specialist having attempted daily to remove it for about fourteen weeks. The case was a very difficult one, from the extreme narrowness of the larynx. When the epiglottis almost lay flat on the root of the tongue and could not be drawn any farther forward, it was with some difficulty the polypus could be seen. After the sixth sitting, the withdrawal of the sponge was followed by the polypus, and a radical cure was procured.”—(*Monatsschr, f Ohreuhelk* 1878, No. 3.)

Phymosis and Epilepsy.

Bertie H., age fourteen years, has had epilepsy for six years. There is nothing in the history of his case that would warrant the conclusion that it was inherited. He has had treatment from four home physicians, and one from Danville, Ill., and one

from Indianapolis, all eminent Allopaths. As a *dernier resort* he came into my hands August 9, 1879. His father, a respectable hardware merchant, gave me the history of the case, which is as follows: At birth was healthy and robust, and showed no symptoms of abnormality until about three years old, when he gradually became anæmic, constipated, and could not retain his urine for any great length of time, and so persistent was the enuresis, that, notwithstanding remedial agents, and every available precaution, he would *wet* the bed once or twice every night.

From having had several cases of persistent enuresis (and one of them my own boy, the cause of which I traced, undoubtedly, to congenital phymosis), all of which was cured by an operation, I was led to examine the penis of the boy in this case, and found not only a case of phymosis, but adhesion of the prepuce to the gland, which was complete, and in my opinion, was the cause through reflex of the epilepsy. I communicated the facts to Prof. Lewis A. Sayre, of New York, who advised an immediate operation. But inasmuch as the physician who had preceded me in the treatment had been unable to control the paroxysms, I deferred the operation a few weeks in order to test the efficacy of *specific medication*, which I knew would do no harm if it would do no good. The bowels being constipated, the tongue broad and full with a yellow coat or fur upon it, the tissues seeming unusually full, I prescribed podophyllin, gr. 1 to 100 grs. sugar, giving three grains of the triturate three times a day, and, as a prophylaxis, gave nitrite amyl by inhalation, only when the aura was experienced.

This treatment was continued four weeks, the bowels became regular, when both remedies were discontinued and the patient put upon bromide of ammonium, half oz. to water ʒiv , a teaspoonful four times a day. For over two months, the patient did not have a seizure, and then only two very light paroxysms.

On November 15, assisted by Dr. Sam Whitehall, I operated by dissecting up the preputial tissue and uncovering the glans penis. In the sulcis behind the corona, we found

several small, white lumps of concrete matter, hard and brittle, partially buried in the mucous membrane, which were removed with some difficulty. The traumatic surface was treated with dry oxide of zinc, and healed readily leaving an uncovered or uncoverable gland. Over two months have elapsed without a return of any of the old symptoms, while the boy's general health is very much improved.

I make this report in order to stimulate investigation, for I have never seen anything in Eclectic writings touching on this subject. I have a number of cases which I may compile at some future time, showing that congenital phymosis almost invariably produces an epileptoid condition.

I would be glad to hear from our good brothers, S. H. Potter and I. J. M. Goss, on this important subject. If any of our Eclectics have met with such cases, if they will send me their reports I will compile them with mine, or I will send my cases to any other brother who will arrange a paper on this subject for the next meeting of the National Eclectic Medical Association.

J. C. BURLINGTON, M. D.

ATTICA, Ind., January 26, 1880.

Embalming the Dead.

Mr. Kreisman, United States Consul General at Berlin, in his dispatch to the Department of State, dated October 30, 1879, communicates a description of a newly discovered process for the preservation of dead bodies. The inventor or discoverer had secured a patent for the process, but the German Government, attaching great importance to the invention, induced the patentee to abandon his patent. Thereupon the government made public, through the press, a full description of the process. The liquid used is prepared as follows: In 3,000 grammes of boiling water are dissolved 100 grammes of alum, 25 grammes of cooking salt, 12 grammes saltpetre, 60 grammes potash and 10 grammes arsenic acid. The solution is then allowed to cool and filter. To 10 litres of this neutral, colorless, odorless liquid, 4 litres glycerine and 1 litre methylic alcohol are to be added. The process of preserving (or

embalming) dead bodies by means of this liquid, consists as a rule, in saturating and impregnating these bodies with it. From $1\frac{1}{2}$ to 5 litres of the liquid are used for a body, according to its size. The bodies prepared by this process are said to retain their form, color and flexibility. Even after a period of years such dead bodies may be dissected for the purposes of science and criminal jurisprudence; decay and the offensive smell of decay are completely prevented. Upon incision, the muscular flesh shows the same appearance as in the case of a fresh dead body. Preparations made of the several parts, such as natural skeletons, lungs, entrails, etc., retain their softness and pliability.—*New York Medical Eclectic.*

EDITORIALS.

SLOW PULSE.

As this subject is eliciting some attention in a number of our exchanges, we will contribute a little *experience* with *slow pulse* cases. In nearly all the cases mentioned by the journals, there seems to have been no attempt on the part of the writers to assign any cause for the phenomena. Occasionally, cases are met with where the heart-beats do not exceed eighteen to twenty-four per minute, and on careful examination no perceptible organic disease can be detected; the patients manifesting nearly normal strength and endurance for months and even years. Two very interesting cases have been under my care the past year.

Case 1.—Mrs. D——, aged thirty-five, married for fifteen years, but never had children. Consulted me, as she said, for *heart disease*, and was fearful that she might have a malignant tumor of the uterus or ovaries, as she had not menstruated for more than four years. Instituted a very thorough examination: There was no evidence of any organic disease of the heart, uterus or other organs. Slight leucorrhoea and well marked atrophy of the ovaries and uterus. The heart-beats were twenty-two per minute. Sounds appeared perfectly normal, except in rapidity. Complained much of cold limbs;

the temperature was one and a half degrees below normal. Digestion was very slow and imperfect, food remaining in the stomach for ten to twenty-four hours, and as a result of this slow and imperfect digestion, she suffered much from intestinal gases, and the usual vertigo and sick-headache incident to that condition; but by being extremely cautious about her diet, using only plain and easily digested food, her condition was comparatively better. Now to find a cause for this extremely slow pulse, low temperature, slow digestion, amenorrhoea, etc., etc., was a puzzling question, especially as she had not previously had any serious disease, and then the long duration of this peculiar condition—ten years. Could it be *the liver* was at fault, or should we make use of that sui-generic term, *malaria*? I did not like to believe that either of these indicated conditions could possibly continue as uniformly for so long a period. However, it appeared evident that some subtle yet effectual agent was causing a partial paresis of the nerve ganglia, and perhaps resulted in anæmia of these little nerve centers. This train of thought led me to prescribe such agents as ferrum, strychnia, phosphorus, cuprum, etc. Of these, strychnia alone seemed to produce any effect. The last-named agent was administered from one-two-hundredth to one-twentieth of a grain every four hours, which accelerated the heart's action to thirty per minute, but so soon as the medicine was withdrawn, the heart-beats would invariably drop to the old figure, twenty-two. Next, I exhibited large doses of freshly prepared *pepsin*, which so materially aided digestion that my patient was enabled to digest all usual articles of diet with comparative comfort, and was free from intestinal gases, but no change in the pulse rate. My next prescription was as follows:

R. Sanguinarina.....gr. ii.
 Hydrastin.....3ss.
 Salicin.....gr x L
 M. Fill capsules No. xx.
 Sig. Take one before each meal.

The indications which led me to prescribe these remedies were to prevent the fermentation of food, and the formation of

stomach gases, etc., by the action of the salicin, and the hydrastin to stimulate a flow of gastric secretion, and thus promote a more rapid digestion. But the most important remedy of the trio, and the one upon which I placed the most reliance was the *sanguinarina*, selected on account of its well-known physiological action in stimulating the spinal and sympathetic ganglia, when administered in small doses, causing a very decided increase in the heart's action, rise of temperature and increased respiratory movements, by producing an irritation of the vaso-motor center, and causing an increase in the blood pressure. Much care is required to select the proper quantity of this agent so as to produce the full stimulant action of the drug without producing the toxical effects of over-stimulation, and consequently a partial paresis of the vaso-motor center, and the ganglia of the sympathetic, which would produce the opposite effect to that desired in this case. But *one-tenth grain doses ter diem*, will seldom produce the characteristic toxical effect—and that amount was prescribed. At the end of the second day, found my patient with a pulse of forty-eight per minute, full and strong, and the coldness of the extremities had quite disappeared, and her general condition greatly improved; treatment continued, and in six days the pulse rose to sixty-six per minute, at which point it has continued ever since. She has normal digestion, and at four weeks (after this treatment) perfectly natural menstruation occurred, and has appeared regularly every month since, and the lady is undoubtedly now in perfect health.

Case 2.—A lad aged fourteen, pulse thirty-four, rather anæmic, temperature below normal, digestion slow and imperfect, and some cedema of the limbs. He had taken many forms of iron, calisaya and bitter tonics, but experienced no permanent good results. Electricity and strychnia would accelerate the heart's action a little for a few hours only. I gave him one-sixteenth of a grain of *sanguinarina* three times a day for two weeks, at which time his pulsations were eighty. Cuprum and ferrum redactum administered on alternate days, and a generous diet, soon corrected the anæmia, and no

further treatment was required. These results led me to think that if a vaso-motor stimulant is required in such cases, we have a valuable remedy in *rational doses* of sanguinarina.

D.

THE ANALYSIS OF URINE.

PLAIN DIRECTIONS FOR STUDENTS AND PRACTITIONERS.

In order to estimate *accurately* the changes which occur in the urine in health and disease, or to successfully pursue *original* investigations, a thorough knowledge of analytical chemistry and of the use of the microscope, as well as a good degree of scientific skill, is indispensable. But a moderate amount of skill with the use of simple tests, will enable any one to make available for diagnosis and treatment, the conclusions of experts in chemistry and microscopy. The intent of this article is to furnish concise directions for applying tests for the more important substances sought for in practical urinalysis.

PRELIMINARY REMARKS.

Quantity.—The average quantity of urine passed by a healthy adult in twenty-four hours, is from thirty to forty ounces. The quantity in health may be above or below the average, above when large quantities of fluids have been ingested, in persons of sedentary habits and in winter; below in summer and under all conditions which increase perspiration and pulmonary exhalation.

Normal Reaction is slightly acid, reddening litmus, but during digestion may be neutral or slightly alkaline. To determine the reaction, use violet colored litmus paper. Acid urine reddens, alkaline changes to blue, neutral has no effect.

Color.—Healthy urine is of an amber color, the shade varying according to the quantity passed. The greater the quantity the lighter the color. The morning urine is darker than that passed at other times, and the use of animal food is followed by urine of a high color. To examine urine for color, acidulate with hydrochloric acid, boil and allow it to stand for twelve hours. Examine by transmitted light.

Specific Gravity.—The specific gravity of normal urine varies from 1.015 to 1.030 and contains about twenty grains of solid matter to the ounce. The less the urine, the greater the specific gravity. Female urine is a little lower than male except during pregnancy, when it rises to about 1.030. To determine specific gravity, use a urinometer. Remember that deviation from the above standards of quantity, re-action, color, and specific gravity is compatible with ordinary health, but a decided and persistent deviation is a proof of disease.

We usually find a specimen of urine to consist of two portions, viz., a *clear fluid* and a *deposit of sediments*. Abnormal substance may be contained in either or both, and hence both must be submitted to appropriate tests.

The principal abnormal substances held in solution in the clear fluid are three in number—albumen, sugar and biliary coloring matter.

I. *Albumen.*—Urine containing much albumen is generally pale and of low specific gravity. The test for albumen is the *successive* addition to the urine of *heat* and *nitric acid*. Neither alone is conclusive. Fill a test-tube one-third full and hold in the flame of a spirit lamp until the boiling point is reached. If it become turbid, the opacity is due to one of two causes—*albumen* or the *earthy phosphates*. The addition of one or two drops of nitric acid will settle the question. If it be albumen, the opacity is slightly increased, if the phosphates it entirely disappears.

The quantity of albumen present from day to day may be estimated with tolerable accuracy by allowing the coagulum to collect at the bottom of the test-tube and comparing its mass with the amount of urine used, as $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, etc.

An artificial albuminous urine may be advantageously employed by the beginner to learn the re-action of the above test. A little of the white of an egg stirred up with the urine and the product filtered will respond to the test. *Caution.* Albumen is slightly soluble in alkaline liquids, also in dilute nitric acid, therefore if the urine is alkaline or neutral it should be acidulated with a drop or two of acetic acid before the test is applied.

II. *Sugar.* Urine containing much sugar is increased in amount, generally acid, pale and of a high specific gravity. To detect the presence of sugar, use Haines' Sugar Test Solution.*

Formula—

Pure Sulphate of Copper,.....	gr. 30
Pure Glycerine.....	fl. drachms 2
Pure Caustic Potash, in sticks.....	drachms 1½
Pure Water	fl. ounces 6

“Dissolve the sulphate of copper and glycerine in a portion of the water, and the caustic potash in the remainder; mix the two solutions, when a perfectly clear, transparent, dark blue liquid should result, which may be bottled and set aside for use. As usually made, it generally throws down a slight, reddish deposit upon standing a week or two. This, however, does not affect its value as a test; in using, simply decant the clear liquid from the sediment.”

Directions for Use.—“Take about one drachm of the test solution and gently boil it, when no change should take place; now add eight or ten drops of the suspected urine and again bring to a boil. If sugar be present, an abundant yellow or yellowish red precipitate is thrown down; if no such precipitate appears, no sugar is present.”

Caution.—The presence of phosphates often causes a white flocculent deposit which must not be mistaken for sugar.

The Fermentation Test.—This test may be used to verify the result of the above test, or to make the presence or absence of sugar absolutely certain. “Take three test-tubes, A, B and C, place in each some washed yeast, fill A completely with the urine to be tested, and place it in an inverted position, the mouth below the surface of some of the same urine in a flat vessel (the entrance of air being prevented, during the inversion, by closing the opening of the tube with the finger until it has been brought below the surface of the urine.) Fill B completely with some urine to which grape sugar or honey has been added, and C with distilled water, and invert them in the same way as A; B in saccharine urine, and C in

* Devised by Prof. W. S. Haines, M. D., of Rush Medical College, Chicago.

distilled water. Leave all three tubes in a place where the temperature is about 60° Fahr. for about twelve hours, and then examine them. If gas has collected in B over the surface of the liquid, and none in A, the urine is free from sugar; if gas has collected in both A and B and not in C, the urine contains sugar; if no gas has collected in B, the yeast is worthless, and if any gas be found in C, the yeast itself contains carbonic acid gas; in the last two cases the process must be repeated with a new sample of yeast."

An artificially saccharine urine for experiment may be made by dissolving a few drops of honey in an ounce of urine.

III. *Biliary Coloring Matter*.—This may be detected by the following test: Pour a little of the urine into a white plate, and allow it to come in contact with a few drops of nitric acid. A play of colors will be observed as the two fluids mingle, varying from a violet to a green. If biliary matters be absent a reddish tint more or less marked will usually be seen. Bile from the dog diluted and mixed with urine will give the re-action.

URINARY DEPOSITS.

The most frequent deposits which are of practical importance are urates, phosphates, uric acid, pus and blood. They may be detected by the following tests:

I. *Urates*.—Urates are soluble in water at the temperature of the body, therefore they are not visible when the urine is voided, but if present, a cloudiness appears as the temperature falls, followed shortly by a copious deposit, varying in color from a white to a pinkish red. If this deposit clears up by the application of heat, it is composed of urates.

II. *Phosphates*.—Urine is generally neutral or alkaline. Phosphates are soluble in an acid solution, more soluble if the liquid is cold. A drop or two of any acid will cause them to disappear.

III. *Uric Acid*.—This deposit resembles grains of red sand. Place such grains in a clean porcelain evaporating dish, add a drop or two of nitric acid and evaporate over a spirit lamp. If uric acid is present, the result is a pink stain, which on the addition of ammonia water turns purple.

IV. *Pus*.—Best detected by the microscope. Pour off the clear liquid and shake the deposit with an equal bulk of liquor potassa. The presence of pus causes the mixture to become thick and viscid, sometimes semi-solid. Pus from a suppurating wound may be mingled with urine for experiment.

V. *Blood*.—Bloody urine is always albuminous. The application of heat and nitric acid will change the coloring matter of the blood to a very dark shade, and becoming entangled with the coagulated albumen it will collect at the bottom of the test-tube as a chocolate-colored mass with the clear urine above. Blood from any part of the body or from animals may be mixed with urine for experiment.

In a succeeding paper, the pathological indications of the abnormal substances here mentioned will be briefly stated.

W. K. H.

JOHN BUCHANAN AND THE PHILADELPHIA——* NASTINESS.

Again they have caught him doing dirt in the matter of a woman and abortion (see Philadelphia papers of Jan. 3, and Cincinnati *Enquirer*, Jan. 4,) of which we do not care to publish the details. This Buchanan professed to be an Eclectic, but we gave him the cold shoulder so vigorously that our school of medicine escaped the censure that followed his evil practices. But some of our Eclectics thought we were persecuting the man, as they think we persecute others when we are showing up some of their crookedness. But time has proven that we took the right course in the matter, as it will prove that we were right in other things.

I suppose that our Chicago people will begin to regret that they went to bed with the aforesaid John, some five or six years ago, and adopted his books as the text-books of their college (?). We wouldn't wonder if *kyestine* could have been found in their urine since that time.—*Cincinnati Eclectic Medical Journal*.

The brains of the editorial staff of this Cincinnati organ appear to be quite exhausted when they are compelled to resort

*And Cincinnati.

to such paragraphs as the above in order to relieve their chronic congested spleens toward the Chicago Faculty, to whom it will be a surprise to learn that they have ever recommended the books of the above-mentioned "John."

From a careful analysis of several cases, no *kyestein* has been found; but a large stone has been discovered in Scudder's bladder since his return from a visit to the Medical Board, it being of such enormous size as to require Cæsarean section for its removal.

CALIFORNIA MEDICAL JOURNAL.

A new aspirant to journalistic laurels makes its appearance with the new year, and, judging from the first issue, it will give some of its older rivals a hard race for the first places in medical journalism. It hails from the Pacific Coast, a country famous for growing everything *large*, and we can safely predict for our sister journal a *large* measure of success. It may be doubted whether the influences of climate and country have much to do with medical journals, but we are inclined to think that such is the case, for we are accustomed to receive *unusually large doses* of dogmatism and bigotry from the representative old-school journal of the Pacific.

In striking contrast with such writings are the liberal principles set forth in the editorial pages of the new journal. We refer our readers to an abstract of an editorial, under the title of "Eclectics and Allopaths," in proof of our statement.

With a large field of usefulness, and an energetic corps of editors, the *California Medical Journal* is destined to play an important part in the advancement of liberal medicine.

The editors are Drs. D. Maclean, J. H. Bundy and J. I. Kendrick, men who by their contributions to current medical literature are already well known to many of our readers. The initial number presents a tasty appearance, contains well-written and valuable original articles, and a judicious selection of extracts from other journals. We give it a hearty welcome to our list of exchanges, and tender our best wishes for its prosperity and usefulness.

SOCIETY MEETINGS.

THE ECLECTIC MEDICAL SOCIETY OF MISSOURI.

The eleventh annual session of this Society was held in the American Medical College, St. Louis, commencing January 15, 1880, and holding two days. At the calling of the roll the following officers responded: J. T. McClanahan, President; J. T. Kent, Vice President; J. W. Thrailkill, Secretary; E. Younkin, Treasurer; J. E. Morris, Corresponding Secretary; and George C. Pitzer, Foreign Correspondent.

The attendance was unusually large, many counties in the state being represented—some by two and others by three delegates. Quite a number of the Illinois members were present—Wheeler, Turner, Bennett, Hobson, Clyde, Stevens, Ellis, Wilcockson, Coffield, Clark, Stout, and others.

The session was a most interesting and pleasant one, nothing occurring to disturb the harmony of the proceedings in any way. Many interesting cases were reported, clinics presented, surgical operations performed, essays read, speeches delivered, and the usual business transacted in a manner satisfactory to all.

On the evening of the second day, the following officers were elected and appointments made for the ensuing year; President, E. Younkin; Vice President, John W. Thrailkill; Recording Secretary, J. T. Kent; Treasurer, William M. Gates, of Carthage; Corresponding Secretary, J. E. Morris; Foreign Correspondent, George C. Pitzer. Censorial Committee—D. B. Huddleston, H. H. Brockman and P. D. Yost. Orator—W. V. Rutledge. Executive Committee—J. H. Wright, A. Churchell and F. McClanahan. Essayists—P. D. Yost, J. E. Morris, J. A. Munk, J. M. Wilhite, William M. Gates and A. Churchell, of Missouri; R. F. Bennett, William D. Turner and A. W. Foreman, of Illinois. Representatives to National Eclectic Medical Association, to meet at Chicago, June 16, 1880—J. T. Kent, W. R. Coryell, George C. Pitzer, P. D. Yost, W. V. Rutledge, J. T. McClanahan, J. E. Morris, A. Merrell, C. F. Kaltmeyer, E. Younkin, A. Churchell, William M. Gates, H. H. Brockman, J. H. Wright and J. A. Munk.

J. T. KENT, Secretary.

THE
Chicago Medical Times.

WILSON H. DAVIS, M. D., Editor and Publisher.
ANSON L. CLARK, M. D., Editor.

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ORIGINAL COMMUNICATIONS.

[LXVIII.]

ARSENICUM ALBUM.

ITS THERAPEUSIS AND TOXICOSIS.

BY RICHARD E. KUNZE, M. D., OF NEW YORK CITY.

[Read before the New York Therapeutical Association, February 9, 1880.]

White Arsenic or ratsbane has been used from time immemorial in the arts, in medicine and the toilet, both by the ancients and moderns of our day. The crude article of the drug under consideration is naturally found, as you well know, in combination with cobalt, iron and nickel, which exist in large quantities throughout the world. It is then known as orpiment or native tersulphuret of arsenic, used as a pigment under the name of King's yellow. Arsenic is separated from the ores by sublimation, and is then known as impure arsenious acid. After purification, it forms the arsenic and arsenious acid employed in the manufacture of many arsenical preparations.

Therapeusis—

"In the treasury of Nature there are many gems; but those only are worth carrying away, which we know how to set."

—Dr. Honigberger.

In reviewing the medical properties of this baneful drug, I shall restrict myself to the able testimony of competent therapeutists and acknowledged authors, who are not obliged to

hide their heads under a bushel measure before they dare give to the world their clinical observations. For my own part, I never used arsenic except to poison rats and cats, while there are those who cannot treat all the ills to which flesh is heir without employing this drug. From a humanitarian's point of view, I respect a patient too much either to set up an inflammatory condition of the alimentary tract or to load his system with a substance, the entire disposition of which is even now so little understood.

Gastritis, the result of indigestion, is already becoming of national repute, due in a great measure to the stimulating effects of our American food and drink. If the dermoid affection of acne in any form warrants the use of this agent, it is only accomplished at the setting-up of another pathological condition, known as eczema arsenicale. If the latter is less hideous, it is perhaps fully as loathsome as the former.

But there are other scruples that I have as a member of the Eclectic Medical Society of the State of New York for not using arsenic as a medicine. The Constitution of that body, to which I have subscribed my name, contains a clause, "That we reject wholly and unqualifiedly all preparations of mercury, arsenic, antimony and lead in the practice of healing the sick, etc." Conscientiously, I cannot use this agent, and; certainly, I will not, while so many safer remedies are at my command. Eventually, arsenical dosing will not bear investigation any more than the misplaced confidence of our patients.

Its Action on the System.—When considered that arsenic is recommended as an antiperiodic, anticonvulsive and anti-squamic, it is no wonder that so much is constantly used. What is more interesting, however, is its action on the economy. Many physicians seem to think, that the injurious effects of taking arsenic is counterbalanced by its rapid elimination in the urinary organs. But all doctors are not agreed on this point. Headland, in "Action of Medicine," says: "Arsenic, when given in too large a dose, or, indeed, when given at all, in most cases becomes a poison." Again he says: "Arsenic is foreign to the blood, and is in every way a catalytic medicine. But the dangerous nature of its action is such as to demand

considerable care in the administration of arsenious acid." Regarding its threefold action, Headland says, "that must of necessity be a various and obscure agency, which is gifted with the power of arresting and controlling so great a variety of morbid actions."

Rinz, in "Elements of Therapeutics," says: "Arsenic, administered in very small quantities and with attention to certain precautions, has the power of aiding the deposit of fat in the tissues of the body, as is proved by the arsenic-eaters of the Tyrian Alps, and by its effects on horses. Larger doses have a very poisonous action; but many points connected with their poisonous properties are still unexplained. The condition of the intestine, whether the drug be introduced by the mouth or skin, assumes the form of a paralytic inflammation of the whole mucous membrane." Bouchardat holds, "that blood is a true tissue, which may be poisoned like other tissues. And it serves as a vehicle by which the poison is distributed to all parts of the body and brought in contact with the liver, kidneys, muscles and nervous system. The liver, as has long been known, is the channel for arsenic, antimony and acids. As to the muscles and their relations with the blood, they are immediately impressed by the presence of any poison in the circulation."

In Waring's "Therapeutics," it is stated that arsenious acid possesses a powerful antiseptic property, arresting, in a manner almost peculiar to itself, the process of putrefaction. Again, others claim for arsenic a preservative quality of dead animal tissue, because it enters into a combination with the gelatine. But this is not attributed to its effect on living tissues. But, why do Austrian peasants take it in such large quantities to render themselves long-winded, if it were not in a measure to prevent a too rapid oxidation of tissue? Some of those men have taken with impunity from four to five grains of arsenic twice a day, up to a good old age. Yet, had they left off taking arsenic or decreased its quantity, symptoms of *poisoning* would have manifested themselves. Now, then, should such isolated cases be taken as the standard to guide us in administering so dangerous a medicine? If so, we might

as well take the professional opium-eater or habitual drunkard to lead the way for us in these two extremes of using stimulants.

Farquharson gives the indications of the *accumulation* of arsenic in the system. Waring says, "Small doses, long continued, *accumulate* in the system, and occasionally produce serious and even fatal effects." Taylor says that "Arsenic is *not* an *accumulative* poison, but is rapidly eliminated by the urine." Whom are we to believe? Says Bouchardat, "First, we see arsenic retarding tissue transformation, then giving activity to nutrition, and finally becoming an active destructive poison, steatogene, or an "atrophiant." We have already seen that arsenic-eaters follow the habit because it rounds off their contour or makes them long-winded, and, for similar reasons, farriers give arsenic to horses, if they wish to sell a poor old nag. So will alcohol fatten hogs and human beings, but it can never compare with the solid meat of corn-fed animals or the compact muscles of our race brought about by a judicious and nutritive diet. If arsenic in small doses *is* cumulative, then the old Scotch saying that, "Many a mickle makes a muckle," is but too true in proving the danger of slow poisoning.

Those therapeutists who, regardless of any scruples, give arsenic in ague, claim that it proves curative frequently in cases which are not controlled by quinia. Such physicians claim that arsenic, on account of its catalytic action, is capable of antagonizing the poisons of intermittent disorders. Truly, this might be likened to the law of "*Contraria contrariis curantur*," in the fullest sense of the meaning. The disease gives way to a stronger poison than that under which the system is laboring. In other words, a supplantation of disease. Now, we also find the defenders of "*Similia similibus curantur*" contesting in the field for a remedy, which, according to its pathogenesis, covers all the ground claimed for it in infinitesimal doses. Surely, the hobby, which is ridden so hard by dissimilar schools of medicine, must be of doubtful origin and cover a multitude of sins.

Toxicosis.—When, several years ago, it was made known that arsenic could safely be used as a cosmetic in various ways for

improving the skin, it took the world by much surprise. So long as toxicologists and therapists disputed each other's opinions regarding the effect of arsenious acid from external absorption, when applied to the skin, the public might well take the benefit of the doubt. Hence, it is not surprising that such a standard treatise as "Cooley on Practical Receipts for Perfumes and Cosmetics," should boldly assert that "arsenical lotions, arsenical soaps and arsenical tooth-cement" are very safe and elegant preparations for the toilet, when it is desirable to remove freckles, eruptions, make the skin beautiful, soft, delicate or transparent, and the latter is very efficacious "to stop all toothache." And, with a blandness quite as surprising, we are assured that they are all *perfectly harmless*! When I come to speak of the effects following a course of arsenical treatment, I shall endeavor to show to the contrary.

It is well known that taxidermists and collectors, if at all careless in the use of arsenical soaps for the preservation of skins, have on divers occasions produced most troublesome sores from the contact of such soap with an abraded surface. The writer, a few years ago, was called in consultation by Drs. Begen, McGauran, and the late Dr. Fagan, about a sickening case of psoriasis inveterata. It involved the hands and arms of a laborer, who for years had unloaded and handled raw hides, coming from South America. It is believed there is sometimes, after curing the hides, arsenic rubbed thereon to protect them against the ravages of insects and vermin. He contracted a hideous disease, to get rid of which he had vainly tried the combined talent of two rival pathies, until removed by eclectic treatment. Now, Hunt tells us that pityriasis sometimes follows the use of arsenic, and the pathogenesis of the drug corroborates similar results. Who disputes it? Taylor also speaks of "chronic poisoning" by arsenic producing eczema arsenicale, and again, it may assume the appearance of urticaria. We now have it positively established that the use of arsenic is frequently followed by squamous and vesicular eruptions.

Leading therapists concede that among the more prominent symptoms following a course of arsenic, are the following:

Under its prolonged use, it occasions a general sinking of the vital powers, with derangements of the digestive and nervous system; it is productive of dyspepsia, gastritis and paralysis of the heart and intestines. The latter, whether the drug be introduced by the mouth or skin, assumes the form of a *paralytic* inflammation of the whole mucous membrane. Suffusion of the eyes, inflamed conjunctiva, and intolerance of light, are early symptoms; then we have irritation of the skin, with exfoliation of the cuticle, and falling-off of the hair. Salivation, jaundice and strangury have repeatedly followed the use of arsenic.

What more is there needed to show us the virulence of the action of a medicine than is here stated as resulting from the use of arsenic? I refer you to Orfila, Taylor, Headland, Waring, Bouchardat, Binz and other men of science for more particulars. According to Bouchardat, "Arsenic first retards tissue transformation, then gives activity to nutrition, and finally becomes an active, destructive poison, steatogene, or an atrophiant. Now, why are certain organs liable to tissue degeneration from the long-continued use of arsenic? Bouchardat says, "Because the liver and kidneys have an eclectic affinity for carrying off such poisons, and, the altered blood coming in contact with those organs, are thereby impregnated with it." Now, gentlemen, if the elimination of arsenic by contamination with healthy organs is productive of serious organic changes in the structure of tissue, i. e., *fatty degeneration*, then I ask you, why give it at all?

Taylor even says that arsenic has the greatest affinity for the stomach, no matter how introduced, whether from external or internal use. Perhaps it were well for those physicians to consider this point, who apply arsenical paste for the enucleation of cancer and other tumors, because Ringer told them otherwise. In "Guy's Hospital Reports," a fatal case is mentioned from the application of arsenic to the head of a patient. Ringer maintains that, if only sufficient of arsenic be used to get up "high inflammation of tissue," no absorption can take place on account of the material pressure upon the absorbent vessels by such inflamed tissue. Prof. Muspratt holds that arsenic exerts a most destructive influence on the system. As

regards the administration of arsenic, Orfila, by Dr. G. Krupp, says that "arsenious acid in solution is much more dangerous than powder." You all know that medicine in solution is more readily absorbed, and nowhere is this better explained than by the use of hypodermic injections. And in my mind, the reason why of arsenic more cannot be taken by arsenic-eaters in substance, is, because it is not all taken up by the system. Regarding the mode of elimination, Farquharson says that arsenic is rather slowly removed from the body, by the intestines, the urine, and, perhaps, the bile and the skin.

Slow poisoning, other than from medication or design, may also result from the inhalation of disintegrated dust of green wall-paper and from arsenical fumes or gases evolved during combustion of the so-called white Indian fire of pyrotechnic celebrity.

Twenty-four years ago, the writer, making experiments with white fire-powder in which impure chemicals used prevented a rapid or uniform combustion, came near being suffocated while blowing it into a blaze. Not having studied the direction of the currents of air and the entire mass igniting, he inhaled, before he could turn away, sufficient of the rising, stifling fumes that to him it seemed that the day of judgment had come without the aid of any more brimstone. That was his first and last time of taking arsenic, experimentally, at least.

Several chemists have been killed in carelessly generating the highly poisonous arseniuretted hydrogen gas, which is used in the detection of arsenic. Orfila says, that the poison contracted from inhaling arsenical fumes, which are deposited on the mucous membranes of the pharynx, larynx and bronchial tubes, is got rid of in from twelve to fifteen days. He claims that from inhalation the arsenic is absorbed by the nervous system only and is again excreted through the agency of the kidneys, intestines and *skin* the same as when absorbed by the villi.

Peculiar Color-appearance Following the Use of Arsenic.

—How are arsenical compounds, resulting in such a change, taken into the system? We answer, first, *accidentally*; second, *experimentally*; third, *unconsciously*.

Arsenic may be introduced in the form of arsenite of copper, commonly known as Scheele's or Paris green of the shops. Since the appearance of the potato-bug, this pigment was found to be the only reliable poison for exterminating the Colorado beetle, as well as the cotton or army worm. Few only of the agriculturists do we find that know the chemical composition of Paris green. Careless people have applied this poison to many other vegetables in the hope of destroying other insects. Cabbages and other culinary plants have been sprinkled or dusted over with Paris green, and new leaves growing around it, forming a wholesome, unsuspecting-looking appearance. You know that this pigment is only sparingly soluble in water and properly does not prevent plant growth. Already a number of people, horses, asses and many cattle have been killed or chronically poisoned from eating such poisoned plants, and in just such a manner birds, eating half-poisoned insects, were killed. Still another method of carrying arsenic to our system, is from the large quantities of Paris green used in larger towns and cities for destroying croton-bugs and cockroaches. The more ignorant and careless people of society use it lavishly in cupboards and closets. Little do they think that an insect, provided with three pair of legs, carries the adhering particles of the pigment from one food-dish to another. Neither do they seem to think that in cleaning out those shelves the dust thus created is also inhaled by members of the family. Ask your druggists and dealers in paints, how much of arsenite of copper is annually used! In a like manner arsenic is inhaled by those applying it to plants as an insecticide.

The same pigment is freely inhaled by the operatives of wall-paper manufactories and in mills where pigments are ground and colors are prepared. If our costly Board of Health would look a little more into the manner of consuming this baneful pigment, it might prove a boon to society. But how is it that of the National Board of Health, of Washington, D. C., not a member could analyze samples of disinfectants sent there by the Hon. Casey Young, of Memphis, Tenn., which he desired to have approved previous to distribution among

his plague-stricken constituency? Indeed, where ignorance is bliss, 'twould be folly to be wise.

As has been stated already, arsenic may be experimentally conveyed into the body through carelessness, by inhaling the fumes of white Indian fire, which are principally deposited on the membranes of the lungs. Used as it is for signaling or lighting up processions, its effect is similar, though not so deadly as arseniuretted hydrogen gas, which is never inhaled outside of the chemical laboratory. Under this proposition, we may also include the inhalation of dust occasioned during the application of Paris green to growing crops. Farmers, walking up one row of potatoes or any other vegetables and going down another while applying the insecticide, must alternately be to the lee or wind ward of the dust created. Paris green thus used is generally first mixed with flour and then liberally applied. Or it is mixed with water and sprinkled over the plants, which, however, is far less operative in the destruction of insect life.

Not the *least* dangerous mode, by any means, of tainting the human system with arsenic, is, when carried there unconsciously. This occurs in sitting and sleeping apartments covered with wall-paper containing more or less of French green. It principally affects children and adults of very sensitive impressions. In support of this last proposition, I cite from Taylor's "Medical Jurisprudence:" Symptoms of poisoning have been observed in persons who have inhabited rooms of which the walls were covered with this arsenical compound, i. e., arsenite of copper as well as aceta-arsenite of copper or emerald green. Although this compound is insoluble in water, it is sufficiently soluble in the acid mucous fluids of the stomach to be taken up by the absorbents and carried as a poison to the blood." I will also quote Dr. Letheby in "Principles of Chemistry," by Prof. John A. Porter, of Yale College, to wit: "We breathe arsenicated dust from the green wall-papers of our rooms; the confectioners supply it wholesale in their cake ornaments and sweetmeats; the very drugs prescribed for our relief, are tainted with arsenic; nay, more, even our vegetable food, as Prof. Davy has lately pointed out, may

be contaminated with arsenic, and there is probably no drinking water containing iron without a trace of arsenic as well. The poison may thus be stored up in the system until, in the course of years, the amount becomes appreciable." Again, we find in *Chambers' Journal* "Some Special Household Dangers."—"A member of parliament suffered from a painful eruption of the feet, traced, at last, to some fashionable socks, which were laid aside, with the result of ending his complaint. Some California miners died from the effects of poison produced by wearing boots lined with bright green flannel, the color in this case being "Scheele's green," a well-known arsenical compound. A tradesman suffered from wearing a bright maroon flannel shirt. Paper collars, glazed and stiffened with sized white lead, and containing arsenic, have produced serious illness; and the same results have followed the wearing of hats lined with material containing arsenic, and from gloves and coatsleeves similarly treated. Five or six persons in a household were rendered suddenly ill by the matter exhaled from chintz window-curtains and bed-drapery, and green Venetian blinds have been known in hot summer weather to give off particles of arsenic with deleterious affects. The green-cloth lining of a perambulator has affected its young occupants, and the color from the green gas-shades in a composing-room of a printing office, has produced illness among the compositors. In the kitchen, arsenic has now and then been met with, when used to impart a green hue to dishes such as blanc-mange. In one case, a gentleman was poisoned by partaking of a dish innocently enough colored by an arsenical preparation, which had been mistaken by the cook for an extract of spinach. And even in the exercise of the perfumer's art, it behooves us to be on our guard against using preparations for the hair colored green by some compound of this substance. We thus find that arsenic is most widely diffused around us, from the facility, and, above all, from the cheapness with which a beautiful pigment and a favorite hue can be produced through its aid. It is undoubtedly in the form of color in wall-papers that arsenic most frequently meets us. In paper-staining more than one compound of arsenic is used; and in

the manufacture of the beautiful aniline dyes, so extensively used, arsenic is also largely employed. One notable feature of this substance, and one also which gives it a special power of affecting us to our detriment, is the remarkable ease with which it becomes volatile. It may be readily diffused in the form of gas or minute solid particles, and is thus brought into close contact with us in our homes. Green is a very pretty color on walls, but we would say, take care of it."

In recapitulating, I must not forget quoting Prof. George B. Wood, our last and latest authority, who says: "In the arts, preparations of arsenic are largely used as pigments and, excepting the manufacturers of arsenic, it is almost exclusively those who are accidentally exposed to the deleterious influence of these pigments *who suffer from chronic arsenical poisoning*. The poisonous colors are all of some shade of green, and, being very cheap and remarkable for their purity of tone and their permanence under exposure to light, are much used by paper-makers, Scheele's green—the arsenite of copper—contains 55 per cent, and Schweinfurt green—the aceto-arsenite of copper—58 per cent, by weight, of arsenious acid. Paper coated with them has been largely used, not only as hangings, but even as wrappings for confectionery and other edibles; sweetmeats have been colored with them; pasteboard boxes, artificial flowers, tarlatan dresses, shelves in groceries and walls of dwellings, toys of children and various other articles, have been made the vehicles of death, so that hundreds of cases of poisoning, more or less severe, have resulted from the use of these pigments, which ought to be banished by the strictest laws."

Now, in order to give you some idea of the many chances the people have of being poisoned with colored arsenite, or Paris green, I will cite from the "Report of the State Board of Health of Massachusetts, for 1872," that from five to seven hundred tons of arsenical pigments were manufactured in 1862, in New England alone. The climax we find in *Stricker's Medizinisches Jahrbuch* for 1877, who reports fatal chronic arsenical poisoning from working in aniline dyes.

Evidence of Arsenic having Changed the Color of Excretions.—Orfila cites Jaeger's experiments with arsenious acid on birds. The latter says, that when not sufficient was given to kill the birds, among other symptoms observed was that they passed much of a watery fluid having the color of verdigris. Jaeger also says that birds offer greater resistance to the poisonous effect of arsenic than amphibians of the same size. Orfila says that frequent greenish or blackish stools follow poisoning with arsenious acid. Waring quotes Dr. Guy, who made interesting analyses of twenty-five cases, in which excessive or poisonous doses were taken, and in two of these, matters passed by stool resembled *green paint*. Also, Taylor informs us, that matters discharged from the bowels had in similar cases a yellowish color, as it was supposed, from a partial conversion of the poison of the sulphuret (yellow arsenic), but more probably from an admixture of bile. You then observe that even the highest authorities entertain grave doubts as to the cause of such change of color. Who then will say what possibly the result might be, when sulphate of copper and arsenious acid have been absorbed by the system independently of one another? Or would this be at all impossible?

Even "Christison on Poisons," is not sure of the improbability of such a decided color-change of the secretions, and he refers to "Patissier," in the treatise on diseases of artisans, "that persons working in the various preparations of copper, may be recognized by the greenish color of the skin, eyes and hair (?), and that this color even is perceived in the excretion and the stains of the linen from their perspiration."

In the case treated by Dr. Begen for rheumatism with earthy deposits, which appeared in the *Medical Tribune* for January, 1880, the secretion from the skin of a girl, while taking the green-root tincture of iris versicolor, became so decidedly green in color, that I desired to test it for mineral poison. A piece of white muslin, having a stain of a bright green color thereon, was handed to me two weeks ago. Immersed in a solution of ammonia (aqua ammonia, U. S. P.), it afforded a delicate violet-blue color, proving the presence of ammonia-sulphate of copper, and this solution dropped on a crystal of nitrate of

silver, produced a re-action for the yellow arsenite of silver. This test is recommended by Taylor as reliable.

Whether it be the result of having taken arsenical compounds during a continued sickness of ten years, as suggested by Dr. Begen; whether that patient absorbed arsenite of copper in any other way, or how the poison got there, it is for you to say. Yet, it is of such an unusual interest, that it will well bear the investigation of the true scientist.

Antagonistic Action of Arsenious Acid.—While treating of this baneful drug, it may be well to mention one other marked effect of arsenic, in which it becomes a true alexipharmic to an animal poison of the strongest kind. Arsenic is the antidote to the bites of venomous serpents, and has been successfully tried in both hemispheres. Who will explain its action?

Waring says, that Mr. Ireland, of the Sixtieth Regiment, tried it in the bites of every poisonous snake in the West Indies. He gave it in the following manner! ℞ Liquor arsenicalis fl. ʒij; tinct. opii mx; aqua menth. Piper. fl. ʒjss. Misce. He administered this mixture in half a fluid ounce of lime-juice every half hour for four consecutive hours. Five cases were treated with it, and all of them recovered. Eight grains of arsenic were thus given, in each case, and these large doses were well borne by the stomach! Externally, he also applied fomentations and liniments to the bitten parts. But it is in India where arsenic is more than elsewhere used as an antidote to snake-bites. It is one of the cures resorted to by the natives. In using it, the dry arsenious acid is mixed with five or six times the quantity of black pepper, and then made into a pill of the size of a vetch or tare seed. It is then known as the celebrated Tanjore pill.

Dr. Honigberger, also, refers to arsenic as an antidote to the poison of the East Indian viper. While in charge of the Government institutions at Lahore, he caused a fakir to be sent to the insane asylum. Report reached him, shortly afterward, that the fakir had been bitten by a cobra. He went to see him, and was dumbfounded because he found him not suffering in the least; ascertained from him the secret how it was that

the venom did not kill or even harm him. The fakir was an arsenic-eater, and proved his assertion before a number of officials. This same fakir, at a subsequent imprisonment for insulting the Maharajah Sheer Sing, was again bitten by a viper, and came near losing his life, because his system was not sufficiently supplied with the quantity necessary to prove alexipharmic. In other words, his usual supply of arsenic became exhausted while thus imprisoned.

Dr. Honigberger tells us, that in India, arsenic is an ingredient in various compositions which are recommended as remedies against the bite of serpents. In another part of Vol. I, the same author makes another curious statement, to wit: "On my journey from Cabul to Bokhara, I met with an Afghan physician and horse-dealer, who, it was stated, consumed every day *one drachm* of arsenic, in order to maintain his appetite, which he lost in the absence of that remedy, and that he had been in the habit of using it since his earliest childhood." I would suggest that it was rather a large dose from a homœopathic point of view.

While the re-agents of arsenic are well enough known, it may not be out of place here to mention a convenient and reliable *new* antidote: "Dr. McCaw, a Canadian physician, remarks that dialyzed iron—which has recently been recommended as an antidote to arsenic—is simply a paroxide of iron, and exceedingly sensitive to oxygen; hence, on slight exposure to the atmosphere, it unites with the oxygen of the latter, forming a solid oxide. He suggests the following formula as one not generally known for an antidote to arsenic, and claims for it preference over all others for two reasons, namely, because it forms the surest antidote, and because the ingredients are always accessible: Tincture of chloride of iron, one drachm; bicarbonate of soda or potassa, the same; tepid water, a teacupful. These are mixed. The sesqui-oxide of iron is immediately formed in a solution of chloride of sodium. The mixture may be given almost *ad libitum*."

Recapitulation.—Not having eclectic testimony to draw from, I must content myself with the opinions of allopathists

and homœopaths, excepting, of course, that sturdy "go-between," Dr. Honigberger, of the East. In Back's "Diagnostics," we are told that arsenic-eaters quickly lose flesh when ceasing to take arsenic. Hughes holds that arsenic diminishes the power of the red corpuscles to take up the oxygen supplied to them by the lungs; and the carbonaceous compounds thus unconsumed deposit themselves in the form of fat. Grauvogel considers arsenic a powerful agent in preventing a too rapid oxydation of tissues. S. Lilienthal says that habitual arsenic-eaters are exempt from zymotic diseases. And, finally, Hanigberger, who recommends to "hold fast to that only which is good," in his introduction to Vol. I, of "Thirty-five Years in the East," says: "I was pleased to see in a report of the Bengal Pharmacopœia of 1844, that arsenic, in very minute doses, recommended as a diuretic, which is driven off with the urine, may be again easily detected in it. It is highly probable, that if we were as well acquainted with the re-agents of other medicines as we are with those of arsenic, and if we knew where to look for their action, i. e., whether in the blood-vessels, in the gall, or in the bladder, in the spleen, liver, kidneys, stomach, or even in the intestinal canal, we might then be able to detect their *modus operandi* also."

If arsenic be not retained longer in the system than claimed by the men who prescribe it as a medicine, how then is it that, as demonstrated by Orfila, we find it in the earth of graveyards? Do you accept it, that such as found there is wholly due to criminal poisoning? I hope not, though I well remember that it does get there occasionally in such a manner. I was present at a post mortem held by Dr. James R. Wood, in the Bellevue Hospital deadhouse of this city, over the exhumed body of Mrs. Stephen, that had been buried two years previously, and was found to have been poisoned by her husband, for which he suffered the extreme penalty of the law. This happened twenty or twenty-one years ago. The arsenic in her case was slowly administered, and, after death, preserved the animal tissues so well that only her features showed signs of decay. The flesh of the body and color of the skin had the appearance of bacon. The internal organs were nearly intact.

Whether I have shown that arsenic is a baneful or useful agent, or whether it be retained longer in the system than a few weeks, I shall leave that for you to decide. But if true, that in consistency we really find a jewel, then I am proud enough to admit that I should rather like to wear precious gems.

[LXIX.]

GLAUCOMA.

BY PROF. HENRY OLIN.

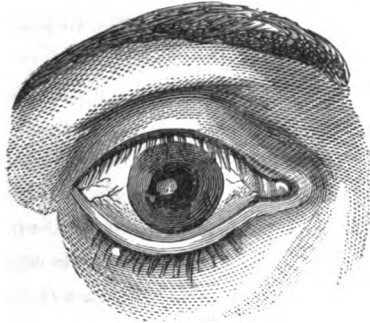
Among the most disastrous results of choroidal congestion is that state of the eye denominated glaucoma. By many authors, it is treated as a distinct disease, and by foreign, especially the German, ophthalmologists, is considered the termination of arthritic inflammation of the globe. It appears, however, as far as I have seen, that the retina always becomes involved in the inflammation, or it is set up primarily in this membrane, yet the disease may be an extension of the inflammatory action from the choroid to it. In the former case, it generally commences in an acute form, and so intense is its violence, that vision is often irremediably destroyed in less than forty-eight hours.

The symptoms which usually present themselves are sensible increase of the hardness of the globe, the ophthalmoscopic appearance of excavation of the optic nerve, the symptoms of hyperæmia and inflammation, sometimes great dilatation of the pupil, often great pain in the globe, as well as a great variety of disturbances of vision. In many cases, the increase of resistance is exceedingly marked; the globe often feels quite as hard as bone or wood. From this extreme, the hardness descends by various gradations to those degrees which may be not infrequently found in normal eyes. The tension frequently even varies in the same eye, within large limits, at one time increasing, at another decreasing.

Its amount is decided as well by the greatness of the resistance which the capsule of the globe offers to its distension as from the amount of the intra-ocular pressure. This latter is very changeable in glaucoma, as it depends considerably

on the intra-vascular lateral pressure, and this is influenced here, as in other places, by a variety of causes.

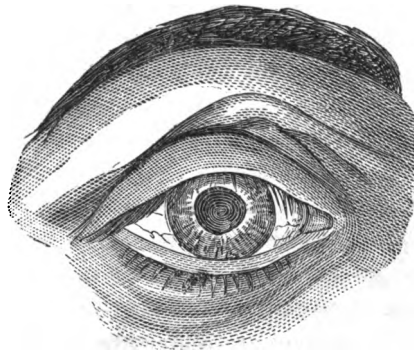
When one eye is still normal, the difference in that and the affected one shows how much of the hardness of the latter is to be ascribed to the increase of the intra-ocular pressure, for



No. 1.—Glaucoma in its first stages, showing corneal complications or gray deposits between its laminae.

then it is more than probable that the other element of the resistance of the globe, the rigidity of the capsule, has been extended on both sides to the same degree. But where the other eye is glaucomatous, or in any other way affected, such a comparative test cannot easily estimate the increase of internal pressure. It would, even, often

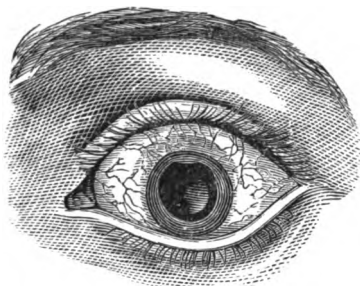
be impossible to show an increase of intra-ocular pressure were there not united with it certain symptoms which have characteristics enough to allow us to come to a conclusion. Among these are, very decided pulsation in the central portion of the retinal vessels; narrowing of the aqueous chamber; dilatation, sluggishness or complete rigidity of the pupil; limitation of the accommodation, and often decrease in the refraction of the dioptric apparatus; finally, anæsthesia of the cornea. The narrowing of the aqueous chamber brings the increase of the fluid of the vitreous immediately to our perception. This plays an



No. 2.—Glaucoma in its first stages, showing slight dilatation and irregular form of the pupil.

important part in the increase of pressure. In the first stage of the disease, this is not always very distinct, but, in the

advance of the process, the iris and lens are always pressed forward; and, finally, the aqueous chamber is entirely obliterated, since, with the atrophy of the anterior uveal portions, the sources of the aqueous humor are exhausted.



No. 3.—Glaucoma in a more advanced stage, showing well-marked dilatation of the pupil.

The increase of the intra-ocular pressure is most plainly indicated by the impairment of the mobility of the iris, the pupil growing larger as the pressure increases, re-acting very sluggishly or not at all, to light. This symptom is always present where intra-ocular pressure really exists, but may be

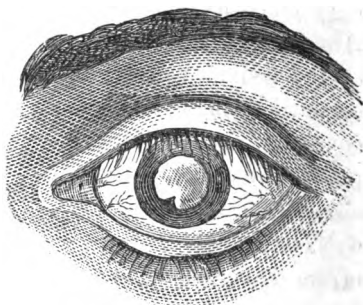
wanting where hardness of the globe is to be ascribed to the resistance of the sclerotica.

In the advanced stages, the mydriasis is of the highest degree, except when in the course of the glaucoma an iritis has been developed, which has left adhesions of the iris to the capsule of the lens.

Anæsthesia of the cornea is only present when the intra-ocular pressure is very great, and then may not be confined to the whole surface of the cornea. It appears that the anæsthesia is due to the great pressure upon the ciliary nerves, producing paralysis of those branches

entering the cornea, and undoubtedly extending to all the nerves, passing between the tunics of the globe.

The aqueous and vitreous humors often become quite cloudy, rendering the fundus quite indistinct and causing a change in the color of the transparent media, which accounts for the sea-green appearance of the pupil when examined by direct light.

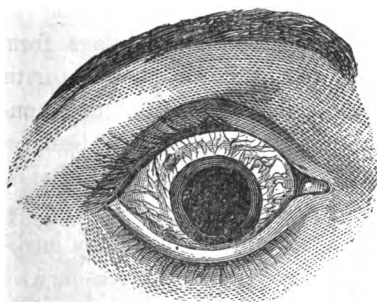


No. 4.—Glaucoma with glaucomatous cataract, and a point of adhesion of the iris.

This haziness of the humors is very variable in its degree and duration. Sometimes it is so slight as to be hardly perceptible, and at others it is so considerable as to prevent an ophthalmoscopic examination. In most cases, however, it is but moderate in the first stages of the disease. It may come on several times a day, lasting for a few moments at a time, or be less frequent or of longer duration.

There is one thing quite peculiar in the symptoms of glaucoma, which is a periodic dimness of sight, the patient becoming almost blind; and, in an hour or so, the vision again becomes nearly as good as ever, these changes taking place several times during a day.

Ciliary neuralgia is often one of the marked symptoms, the globe becoming very sensitive to light and touch, the ciliary vessels greatly enlarged and the tension somewhat increased, with perceptible enlargement of the pupil.



No. 5.—Glaucoma in its last stages, showing widely dilated pupil and obliteration of the aqueous chamber.

The optic nerve entrance is often found excavated and much enlarged, the vessels passing into the globe as if from the bottom of a cup and breaking over its edge in an abrupt curve, showing that the tunics of the globe have yielded to the great amount of intra-ocular pressure.

The causes of glaucoma are not yet fully understood, but it is evident that some disturbance of the general system is in nearly all cases present, and we find those persons in whom glaucoma develops to be broken down in health, and, in many cases, accompanying disease of the kidneys, yet glaucoma may be independent of any constitutional disturbance.

With proper treatment, under favorable circumstances, glaucoma, in most cases, is curable. But, if left to itself, it sooner or later produces a disorganization of the tunics and total blindness. The first and most important step in the

treatment of glaucoma, if there is positive increased tension of the globe, is an iridectomy. This should be done at an early stage of the disease, and before a disorganization of the tunics has taken place, as, if we wait until the eye is blind from such changes, the operation will not restore the parts to a normal condition, but only arrest the inflammatory process.

Iridectomy relieves the intra-ocular tension and lessens the nerve irritation by removing the pressure upon the iris and ciliary plexus. There is no doubt in my mind of the curability of glaucoma by other means than iridectomy, and, with the many discoveries in the field of remedies, we are to-day able to do much in the way of cure where, with the old method of treatment by mercurials, blistering and leeching, we derived no good results.

I have cured a case of acute glaucoma by the application of electricity alone, the inflammatory action subsiding as quickly as it appeared, the eye being well in ten days from the time of the first treatment. It may be asked, was this a true case of glaucoma? I will say that the patient had consulted two eminent ophthalmologists, and the time had been set for an operation, as the case was pronounced a well-marked glaucoma.

If other inflammatory conditions can be arrested by medicine and the application of electricity, I see no reason why glaucoma cannot also be cured by the same or other means aside from iridectomy, where a complete disorganization of the tissue has not already taken place. One of the best remedies in the treatment of this obstinate disease is the tincture of calabar bean (*physostigma venenosum*), which has a direct influence upon the vessels of the globe, contracting them and reducing the congestion and intra-ocular pressure.

The general health should never be overlooked, and such remedies given as the symptoms may indicate, bearing in mind that the vital powers must be sustained in all cases.

[LXX.]

SCARLATINA—SCARLET FEVER.

BY S. H. POTTER, M. D., HAMILTON, OHIO.

The importance of this subject cannot be overestimated, from the fact of its frequency and prevalence throughout civilization. It is in the interest of every practicing physician to carefully review this subject.

During the past four months, scarlatina has prevailed in this city and vicinity. I see, by reading the mortality reports and the statistics of prevailing diseases throughout our whole country, that a large per cent is due to scarlet fever. In many cities and towns the mortality from it, during the winter, has been as high as 15 to 30 per cent, counting all diseases.

Varieties.—Scarlatina *simplex*, *anginosa* and *maligna*.

Symptoms and Course.—After an incubation, supposed to be about five days after exposure to its cause, lassitude, anorexia, headache, and pains in the back and limbs mark the beginning of the attack. Soon these are followed by fever; on the first day, very often, the throat is sore. On the second day, usually, a punctated red eruption appears on the face and neck, and in ten or twelve hours has covered the whole body. It is of a scarlet, or sometimes a brick-red hue, uniformly diffused, with a swollen appearance and great heat; reaching by the thermometer even 106° Fahrenheit. Occasionally miliary vesicles are seen. There is also a sense of burning and some soreness or irritation of the skin. The tongue has a strawberry-like look, from the projection of enlarged red papillæ through a whitish fur. The throat is very red and swollen, generally with a hue not unlike that of the skin. Fever runs very high, with an extremely rapid pulse, great thirst, headache, perhaps delirium, costiveness, in some cases vomiting. Bad cases may have stupor. By the fifth day, mild examples of the disease show already an abatement. Most have passed the height of the pyrexia by the ninth; although *sequelæ* may protract the attack much longer. Malignant cases may be fatal in a day or two, or even in less than twenty-four hours. Desquamation of the skin follows the fading of the eruption;

often large masses of cuticle coming away at once. At this stage more or less decided albuminuria is common.

Scarlatina Simplex.—In this the eruption comes out early and well, with moderate fever, little inflammation of the throat, and an even course throughout. Sometimes there is hardly any febrile disturbance; and the child may play about without having to go to bed.

Scarlatina Anginosa.—Here the violence of the disease falls upon the throat chiefly. The tonsils swell greatly, suppurating either early or late, or they are covered by pseudo-membranous deposit, white, gray, or dark-brown, whose coming away leaves an ulcerous surface, with, in some instances, an acrid, offensive discharge. The extension of the ulcerative inflammation may pass the Eustachian tube to the tympanum, and even may destroy the auditory apparatus so as to cause permanent deafness. After the rash has disappeared, abscesses in the neck may form and discharge, exhausting the patient.

Scarlatina Maligna.—This term designates an overwhelming toxæmic impression of the morbid cause of the disease. Depression in the first stage becomes intense, without re-action; or, after the eruption has partly come out, it recedes, or grows livid in appearance; or the brain is oppressed with coma. Coldness is sometimes present, or unequal temperature of different parts of the body, instead of the usually diffused febrile heat. The throat may be much or little affected. In some instances the patient seems almost as if struck by lightning—so sudden and deep is the general prostration. In this condition death may take place in a few hours. Otherwise, with continued prostration, hemorrhage from the stomach or bowels, vomiting, or diarrhea threatens an untoward result.

Sequelæ.—Abscesses about the throat have been mentioned; similar local affections may take place elsewhere after the attack. Ozæna is not uncommon; neither is suppurative inflammation of one or more of the joints, or of the testicle; nor vaginitis. Endocarditis or pericarditis may occur. So may paralysis; either hemiplegia or paraplegia; generally it is partial, and it is often slowly recovered from.

Dropsy, from arrested action of the kidneys, with imperfect action of the skin, is the most common, and, in many cases, the most serious of sequelæ of scarlatina. It comes most frequently within a week or two after desquamation has commenced. Mild cases are almost as likely to be followed by it as severe ones. Exposure to cold is the generally observable direct cause; but cases happen in which no such exposure could have existed. Anasarca is the least dangerous though most frequent form of this dropsy. They may, instead or in addition, be ascites, or hydrothorax, or hydrocephalus. Albuminuria, and often hæmaturia, accompanies either form.

Diagnosis.—From measles, scarlet fever is known by the eruption coming out on the second day, without catarrhal symptoms but with sore throat—and by its being of a brighter red color, and uniformly diffused instead of being in patches, like measles.

From roseola, it is distinguished by the fever and sore throat, and by the rash in the latter being in irregular blotches, damask rose color instead of the brick or scarlet-red hue.

Prognosis.—This is proverbially *uncertain* in scarlet fever. The simple form is, however, the least dangerous, and a very large majority of cases get well. The anginosa is more threatening and serious. But the malignant variety, as its name indicates, is far the most so; recovery from it is the exception, although it does occur. Adults are, when affected with scarlet fever, in somewhat greater danger than children; and so, especially, are puerperal women.

Causation.—Although most (not all) authorities agree that this disease is very contagious, it is certainly very capricious or variable in its manifestation of this quality. That is, many persons who are exposed escape it. It is true that several children in a family often have it in immediate succession. But the escape of all but one is common. It rarely occurs twice in the same person.

Histology.—Scarlatina manifests great diversity in the organs which it affects by preference; and of intensity in individual cases in the same family, and through an entire

epidemic. 1. It manifests a peculiar hyperæmic exanthema of more or less diffusion over the entire surface of the body. 2. An angina at an early period and of very variable intensity. 3. Certain phenomena in the joints, serous membranes, kidneys and subcutaneous cellular tissue, are most prominent characteristics. The entire disease is the expression of an infection of the entire body by a specific contagion.

Dr. Morton first established its specific nature in the great epidemic in London from 1661 to 1675, thus laying the basis of our positive knowledge of scarlatina, which numerous observations since have materially extended. It is a singular fact, that this disease, unlike most epidemics, becomes more intense throughout the civilized world. Commerce seems to be a main extending medium.

Like other epidemics caused by contagion, death may occur in a brief space, and it may be modified to any degree of mildness, according to individual susceptibility, or producing no effect on many, owing to their being impervious to it. It has been proved that milk can receive and convey the poison, as also can some other fluids. *Unaffected* persons who are briefly exposed may convey it on their apparel, and otherwise. The period of incubation after exposure to the cause, is settled as an average of from four to seven days. The *individual predisposition* to scarlatina is much more general than that to measles and variola, and in no respect identical. This predisposition diminishes with increasing age, as a rule. The season most liable to this epidemic is shown in round numbers by Centman's statistics, gathered from all countries, viz.: 120 in winter, 80 in spring, 90 in summer and 100 having occurred in autumn. The variable character of these epidemics is determined by local causes, and not by atmospheric temperature, as the above shows.

Treatment.—1. Isolation is an indispensable prophylaxis. Where this is impossible, all unnecessary articles must be removed from the sick-room, and all things which can collect or retain dust; free ventilation from out-doors, or the next room, as weather permits, while the patient is protected from currents of air. Cleanliness of patient and apartment must be

strictly observed. Expectations, urine and excrements must be received in disinfected vessels, and promptly removed; the sick chamber often renovated and abound with proper disinfectants (chlorinated lime, carbolic acid, bromo-chloralum, etc.), in the proper form. The patient's linen when changed should be placed in these solutions. Pieces of old linen should supply the use of handkerchiefs, and be burned daily. The necessary attendants should observe similar prudence, and no others allowed admittance.

The *symptomatic* is the rational treatment for scarlet fever. The disease tends to recovery, provided the fever and local symptoms are kept within certain limits. We should watch with the utmost care to detect any anomaly, and promptly render the necessary aid. During the uncomplicated course of scarlet fever, the patient should remain in bed from the beginning to the completion of desquamation. The covering should be neither too light, nor too heavy and oppressive. The temperature of the room should be uniformly 59° Fahr., unless some few cases of over-sensitive patients complain of feeling chilly, from the decrease of fever, when warmth is needed. Special attention to the skin is requisite; sponge the body frequently with tepid water, to which add a little borax and carbolic acid. This will soften and cool the congested skin, allay the itching and burning, and act as a disinfectant.

During the angina, use a slightly astringent gargle, and rinse the mouth with some cleansing fluid. Lemonade and water are proper to drink. During the height of the disease, the diet may consist of milk, cream, buttermilk and soups. As soon as it begins to decline the patient should receive good, substantial nourishment. The bowels should be regular throughout, aided, if required, by enema or a mild saline aperient. Desquamation must be complete before the patient is allowed to move about, to evade the danger of nephritis supervening. The urine must be carefully examined to early detect and prevent this dangerous sequel of scarlatina.

The hydrotherapeutic treatment, modified to suit the phases of this fever, conforming strictly to its tolerance by the patient, is conceded to be the best. It should be energetically

practiced only when the fever runs high, and modified in proportion to the nature of each stage and case. Nephritis seldom occurs after hydrotherapeutics have been appropriately practiced, and the skin has had proper care. Internally, little medicine need be given in ordinary cases. $\mathcal{R}$ Bichromate potassa grs. i; water $\mathfrak{z}$ iii. Sig. Give one teaspoonful every four hours through the disease, until the recovery is complete, as the best remedy to neutralize the blood-poison. Alternate with $\mathcal{R}$ Tinct. aconite gtt. x; syr. ipecac $\mathfrak{z}$ i; spts. nit. dulc. $\mathfrak{z}$ iss, syr. simplex $\mathfrak{z}$ iss; carbolic acid grs. ii. One teaspoonful every four hours is obviously proper, as long as required, for adults, but less doses in proportion to age.

Anomalous and complicated cases.—Whenever a high febrile condition persists, assuming a constant character, we may be sure that a corresponding extreme of exhaustion will supervene, which may occur suddenly. During such a high grade of fever, anomalous swellings of the organs about the throat are apt to occur, causing difficult deglutition, etc. Discutient unguents over submaxillary glands, and the cold pack are required. Nourishment must be given and the system sustained, though appetite is wanting; cold cream frequently given yields the most nourishment and soothes the throat best; sucking pieces of ice to allay thirst and cool the throat and mouth is proper. Sometimes camphorated lotions, hops or other warm anodyne fomentations, are better applications to throat than the cold pack, especially in feeble, sensitive patients. Occasionally, quinine in full doses every four hours is indicated and yields good results. When the tonsils rapidly enlarge and threaten suffocation, scarify them freely. In gangrenous affections of the throat, permanganate of potash, fifteen grains to an ounce of water, is a good gargle. Other deodorizing gargles, as carbolic acid, one part, to two hundred of water, chlorine water, a solution of chlorate of potash, are proper to alternate. Ulcers should be cauterized. Boracic acid, grs. v, to water $\mathfrak{z}$ i, forms an excellent gargle.

Complicated with diphtheria should be treated same as diphtheria. If the nasal fossæ are implicated, the membrane should be removed by a solvent or mechanically. In simple

coryza, or purulent ulcerative coryza, similar treatment is proper.

In children, the nares should be regularly cleansed and oiled. Stomatitis also often requires special attention, and must be treated on general principles. Diseases of the ear require early and efficient special treatment. The lower portion of the Eustachian tube must be cleared by means of douches, gargles, etc. Sometimes the external auditory canal, requires artificial opening, if no spontaneous opening occurs.

The occurrence of bronchial or pulmonary complications require constantly renewed pure air. It strengthens the respiration, promotes expectoration and alleviates dyspnoea. The heart's action must be stimulated and maintained. Anti-febrile measures, careful use of expectorants, and fomentations to the chest are indicated.

Intestinal disturbances, generally diarrhoea, do not require other than dietetic measures. Rheumatism of the joints is generally of a mild form; alkalies internally and externally, and rest, usually allay the rheumatic trouble. Endocarditis in scarlatina requires continual application of cold to the præcordial region, absolute rest, and digitalis to lessen the great frequency of the pulse.

Hemorrhagic scarlet fever indicates the use of anti-miasmatic and anti-febrile means and measures; quinine, hypsulphites, carbolic acid, and salicylic acid; cold, locally applied, to arrest severe hemorrhage. Stimulants and generous diet are usually needed.

Severe brain symptoms are generally due to the high grade of fever, and the specific poisoning, and will generally yield to active anti-febrile treatment. Congestion, incipient meningitis, etc., require energetic measures, cold to the head, evaporating lotions, etc.; or a simple brain excitement, nervous delirium, derivatives are indicated during and after defervescence.

Cervical cellular inflammation, if severe, with or without lymphadenitis, requires cold dressings until suppuration is apparent, then change to warm applications. Abscesses must be

promptly opened, to guard against burrowing, erosion of blood-vessels, and destruction of important nerves. Disinfectants must now be freely used, and openings be well and frequently cleansed and protected with antiseptics.

Nephritis is most liable to occur. Its intensity may be frequently modified by warm baths, fomentations to the loins, and general measures favoring diaphoresis. *Hemorrhages* from the kidneys will mostly also yield to these simple means, without hypodermic injections of ergot. If patients are very weak, the vapor bath should be used instead of the water bath, and skin action kept up. Diaphoresis may be aided by mild diuretics, juniper, onions, acetate or citrate of potash, lemon juice, iodide of potassium, etc., and alkaline salts; by their use, with freely drinking water, urinary secretion is promoted, and the absorption of dropsical effusion is hastened.

If, in spite of every effort, albuminuria and intestinal catarrh persist, and an excessive accumulation of dropsical fluid gathers in either of the serous cavities, tapping may be required. In a high degree of anasarca, scarifications are proper; the dressing of the wound should be soaked in a solution of carbolic acid, to insure a healthy action. Eclamptic or uræmic symptoms sometimes obtain during dropsy. These with active convulsions must be subdued by inhalation of chloroform and ether *aa.*; then continue warm or vapor baths, strict quiet, tonics, as iron, etc.

This very brief sketch of scarlatina in its varied forms and complications, gives only a general idea of the disease and treatment. I have taken an active part in many scarlatina epidemics, employing these general means and measures; a very small mortality, and little unfavorable sequelæ have resulted, in my own experience. In my opinion, this malady receives too much medication, as a rule. This is a morbid condition that requires supporting measures, favorable conditions and surroundings. There are no known prophylactics.

[LXXI.]

REFLEX NERVOUS INFLUENCE.

BY I. J. M. GOSS, M. D., MARIETTA, GA.

Dr. J. C. Burlington, of Attica, Ind., requests myself and Dr. S. H. Potter to give our opinions upon his case of congenital phymosis, followed by epilepsy. In such cases of phymosis, not accompanied, as this one was, with the "concrete matter partially buried in the mucous tissue," epilepsy might not result, yet, the reflex irritation might even produce it where there were no calculous concretions lodged in the mucous tissue. It depends upon the parts involved, and upon the peculiar temperament of the individual somewhat. It is well-known that the penis and the genital organs entire, of male and female, are very highly endowed with filaments from the ganglionic or sympathetic system of nerves, consequently irritation upon those organs is very readily reflected upon the brain, as in the case detailed by Dr. J. C. Burlington. In asthma, we have an illustration of this law of reflex irritation. Many cases of asthma that have come under my treatment, have been traced directly to a diseased state of the digestive apparatus, and only curable by correcting the morbid condition of that function. Valvular obstruction of the heart frequently gives rise to this disease also. Prof. Joseph Adolphus has just operated successfully upon a case of phymosis in this county, before a portion of the class of the Georgia Eclectic Medical College, in which the reflexed irritation was such as to effect the whole vegetative system. There was extensive irritation, and even ulceration of the glands and prepuce with old adhesions, producing profound depression of all the functions and great emaciation. But these symptoms soon ceased after the operation, and the patient rapidly recovered his wonted health. The severing of nerves at their periphery is often followed by tetanus; this is an instance of reflexed irritation upon the motor centers, followed by contraction. And we see instances of reflexed irritation upon sensitive nerves, one upon another, in cases where one tooth is decayed, and causes another to ache. And many cases of hysteria may be traced back to some diseased condition of the ovaries or uterus.

Nervous headache is often the result of morbid digestion, which is reflected irritation from the stomach to the brain. There is a vast field here to explore.

[LXXII.]

**THE BROMIDE OF AMMONIUM—ITS THERAPEUTIC
USE IN DISEASE.**

SYNOPSIS OF A LECTURE DELIVERED BEFORE THE CLASS OF
BENNETT MEDICAL COLLEGE FEBRUARY 11, 1880.

BY E. HALSEY WOOD, A. M., M. D.

This agent is most efficient in passive congestion, which may be considered for the purposes of this lecture as of two kinds, viz., hypothermic and hyperthermic. As it is not in any sense an antiperiodic, periodic congestion need not be taken into account. These two forms of passive congestion are so called because the diseases due to this condition can be arranged in two classes, in which a diminutive or an excess of natural heat is a prominent symptom. Passive congestion, or hyperæmia, is a state of the tissue in which the blood either does not flow through the capillaries with its natural celerity, or else there is a complete stasis, and between these two states there may exist any variation in the slowness of the passage of the blood. Passive congestion is due to ganglionism, which means irritation, erethism, or depression of the ganglionic centers, transmitted thence to their ultimate distribution, and deranging their vaso-motor and trophic functions. Briefly, and perhaps crudely, the connection may be stated thus: The vessels move the blood, and the nerves move the vessels; if then passive congestion be present, it will denote derangement of the ganglia, and the severity of the congestion will be the measure of the intensity of the ganglionic disturbance.

The causes of ganglionism must be sought for in all of the depressing agencies which act upon the vital or nerve force of the body. These are found in all of the external circumstances of life. In the air, its heat and cold; its dryness and moisture; its electrical condition and purity. Cognizance must be taken of the alimentary habits and modes of life exposed to

atmospheric changes, and of the clothing and sleeping of the individual, to ascertain in what respect and degree they do not accord with the laws of hygiene and sanitation.

This view discards the idea of a single specific cause for the diseases characterized by passive congestion, and entirely eliminates malaria *per se* from etiology. The apotheosis of "malaria" must be written.

The symptoms of ganglionism (neurasthenia of some writers) are as follows (these symptoms are also the indications for the use of the bromide of ammonium): Frontal headache, suffusion and blurring of the eyes (asthenopia), soreness in the upper eyelids, ptosis or convulsive closure of eyes, due to paresis of levatores palpebrarum, a sense of swollenness or bulging in the eyes, a wavering dilatation of pupil, injected and icteroid conjunctiva, excessive sweating, sleeplessness, disagreeable dreams, anorexia, nausea, vomiting, a retching, stiffness of fingers, numbness of hands, blueness of nails, capillary congestion of surface of hands, pain in nape of neck, in shoulders, elbows and knees, pain at sacro-spinal junction (lame back), in calves of legs (cramps) and under the scapula, coldness of extremities, any appreciable degree of diarrhoea, anasarca of feet and ankles, congestive, intestinal, uterine and renal hemorrhage, despondency and irascibility of temper, lassitude and weariness, hypothermy and hyperthermy, hot flushes and cold chills, hopelessness, listlessness, drowsiness in the daytime, sweating hands, atonic voice, pulse abnormally slow or thready, and a sense of being easily chilled.

The term hyperthermy is employed to signify excessive heat of body, due to ganglionic derangement. This heat is not regarded as being *true* fever, and cannot properly or correctly be so termed. In true fever, the body is hot alike all over, while in hyperthermy the extremities are cold, and the body is intensely hot. Sunstroke may be instanced as the type of hyperthermy. The difference between the heat of the body, and that of the extremities, can be best appreciated by the hand of an observer whose caloric condition is normal, and whose sense of the differing degrees of heat of the various parts of the surface of the human body, under the changing circumstance

of health and disease, has been duly cultivated. The thermometer is utterly useless in such cases.

The bromide of ammonium is anti-congestive, and acting thus, it becomes a tonic, an anodyne, a hypnotic, and an anti-emetic.

It has been used as the sole remedy by the lecturer, with the best success, in the following diseases: Diarrhoea, cholera morbus, cholera, eclampsia, icterus, marasmus of bowels, congestive uterine hemorrhage, congestive intestinal hemorrhage, chlorosis, anæmia, hæmatemesis, congestive pulmonic hemorrhage, and generally in diseases presenting any of the symptoms enumerated above.

It is recommended for tentative use in the following diseases: Sunstroke, typhus fever, yellow fever, hemorrhagic and hæmaturic fevers, dipsomania, sea sickness, scurvy, spurious phthisis, pseudo-pneumonia, pseudo-rheumatism, pseudo-gastritis, milk sickness, cholera infantum, and generally in congestive disorders.

The bromide of ammonium may be dissolved in the proportion of one ounce of the salt to four ounces of water. Of this solution, a teaspoonful diluted with two or three tablespoonfuls of water may be administered to an adult at any interval from five minutes to four or six hours. The dose will of course vary with the age, ranging down to a grain in a drachm of water for an infant a few weeks old.

This remedy is incompatible with acids, hence all acids and acid fruits must be avoided.

Frequently, cases regarded as "malarial" in their nature will be met, which are found to be not amenable to quinia. Such cases will yield very readily to the action of this bromide. It produces its best effects when the tongue is clean and moist, and in view of the recognized uncertainty of remedial agents, it acts with more absolute certainty than any article of the materia medica. Too much stress cannot be given to the injunction to patients using this remedy to eat moderately, because it excites a ravenous appetite, and they are very apt to overload their stomachs. The bromide will be found available where opium and its preparations from their congestive

nature are not tolerated, and also where counter-irritants are productive of no benefit, and produce distress sometimes most agonizing.

NOTE.—The bromide of ammonium is presented to the medical profession as a specific for cholera. The lecturer has based on its therapeutic properties his claim to the prize of \$80,000, founded in 1849. This sum was bequeathed by M. Breant to the Academy of Sciences in Paris, to be awarded to the person who should discover either the cause of Asiatic cholera, or a remedy which would cure it in the immense majority of cases. The lecturer's theory is that there is a passive congestion of the liver. The blood is dammed back in the portal veins. Stasis of blood ensues. The serum separates from the solid portions of the blood, and is effused into the intestine. Cramps are reflected from the bowels. Vomiting is due to the congestion of the mucous surface of the stomach. The bromide causes dilatation of the hepatic capillaries, and the blood flows through the liver, and all the phenomena of the choleraic attacks disappear under the benign effects of the remedy.

[LXXIII.]

TREATMENT OF DIPHTHERIA.

TRANSLATED BY J. TASCHER, M. D., CHICAGO.

(*From Medizinische Neuigkeiten für Praktische Ärzte.*)

Dr. Lachmund recommends the following treatment of diphtheria (*All. Med. Centralzeitung*, No. 1, 1880). "When we have examined the existing literature on diphtheria—which in our time is one of the plagues of the world—we have but a meager knowledge of the disease, and thus far the treatment has been very unsatisfactory.

Out of the many indications that present themselves for treatment—local, constitutional, and local and constitutional combined, etc.—Dr. Wiss advocates constitutional treatment to be used only. Since I have become acquainted with his method of treatment, I have experimented during the last year, using the constitutional treatment, the results of my experiment having been so flattering, that I feel it a duty that I

owe to my colleges to make them acquainted with my method of treatment. As a matter of fact, it is not a never-failing treatment. I simply wish to give it as having been a more successful and pleasant treatment, especially with children, than the treatment usually recommended.

Out of seventy-one cases of diphtheria that I treated, three which had become convalescent from scarlet fever and two from scarlet fever and diphtheria combined, three weeks after had an attack of diphtheria, at this time I was called in to see them.

There was a general anæmic condition, with a tendency to collapse; first died about two hours after I was called in, the second died the next morning, the third lived about four days, with a temperature 40—40.5° C. In general, I used the treatment recommended by Dr. Wiss, modifying it to suit the age and condition of the patient.

R. Sul. Quiniæ 0.2—0.6 .Ammon. muriat. 2,0—6,0. Aq. destill. 50,0—100,0. Syrupus Simplicis 2,0—6,0, Misc. Sig. A teaspoonful every hour. In preparing this mixture, it is necessary to add some acid to cut the quinia. In order to facilitate the dissolving and loosening of the membrane, I direct a few drops of ob. terebinth to be dropped on a sponge and inhaled by the patient. A gargle composed of chloride of lime was used where children were old enough to gargle. The therapeutical effect was in general well marked in a short time. The quinia sustained the patient's strength, and lessened the intensity of the fever. The muriate ammonia dissolved and loosened the membrane in less than forty-eight hours, after which all danger is past. At this stage of the disease, it is advisable to give small doses liq. ferri sesquichl., in a little sweetened water, or in the place of this a decoction of quinia may be given.

This method of treatment I hold as being simple, rational and effective, and much more pleasant in the treatment of children than the old method of applying caustic applications locally.

None of the caustic local applications do in the least decrease the formation of membrane, on the contrary they have

a tendency to increase the formation of membrane, and at least, cause extensive sloughing. After convalescence, as a prophylactic against a new attack in the same individual, the face, neck and breast should be frequently bathed in cold water. I can assure you if this procedure be carried out it will materially decrease the tendency to a new attack in the same individual, as it is not a rare occurrence where the same individual has been attacked two or three times with diphtheria.

In proof of the efficiency of the above treatment, I would add the statement of Dr. Andresse, of Teltow, who used it extensively in the epidemic that prevailed in that section last summer. He says "many cases that I believed would surely die, became convalescent under the above treatment. As an auxiliary to bring about a cure, a nourishing diet should be given, such as raw eggs, port wine, beef tea or raw beefsteak, and daily, about seven to eight grs. of quinia.

[LXXIV.]

DEATH BY CHLOROFORM.

BY PROF. MILTON JAY, M. D.

January 3, 1880, Mr. John Black, of Plainfield, Ill., æt. twenty-three, came to my clinic at Bennett Medical College, with necrosis of lower third tibia, the result of an old injury, which had been twice operated upon without receiving any permanent benefit. He was a robust young man, and in good health except the diseased limb. An examination was made, and an operation decided upon for the removal of the dead bone. He was placed upon the operating table; chloroform was administered by Prof. Harrison, who has had large experience in administering anæsthetics during the past few years; and is unusually careful and observing of every symptom. The patient was a little noisy and talkative, but nothing unusual occurred; and when he was seemingly anæsthetized, I passed a probe into the diseased structure, when he spoke, saying, "Don't operate yet, I can feel that, give me some more chloroform." It was continued, the napkin from which the chloroform was being given was at no time nearer than two inches of his face; he had not

taken more than a half-dozen inhalations after he had spoken, when suddenly respiration ceased and he was dead. All known means for resuscitation were immediately resorted to, and perseveringly kept up for more than two hours, but all to no purpose; not a sign of life was ever observable; stimulants, position, artificial respiration, heat, electricity from strong batteries, were all used as restorative means. Post-mortem examination revealed softening of the brain, with about four ounces of effused fluid in the brain. Hence the cause of death was attributable to this condition, and a verdict rendered in accordance with the above-stated facts; and yet there were no symptoms to indicate that such a condition did really exist.

In all cases of death by anæsthetics, one of three conditions will be produced, and either may produce death, viz.: *Coma*, *asphyxia* or *syncope*, depending upon whether the brain, lungs or heart, are the organs affected. During the past twenty-five years, I have administered, and had administered, chloroform to more than three thousand patients, and this is my first and only case of death. While we all admit that the introduction of the anæsthetic agents, is the greatest ever conferred upon the practice of surgery and suffering humanity, who must subject themselves to critical and otherwise painful surgical operations, yet it is occasionally attended with danger, and sometimes even death; but the many thousand successes attending their use, must outweigh the occasional failures. So it is with many of the blessings and comforts of life, while they sustain and cheer the thousands on their way, as an oasis in the great desert, yet a few fall as victims, overcome and crushed to death by that which was intended to be a help and a blessing to mankind. The responsibilities of the surgeon are numerous and diversified; and, after he has exercised his utmost skill with sleepless vigilance, he watches the result, and, finally, is doomed to see the last flickering ray of mortality go out in darkness; he can but feel sad, and if he be possessed with the feelings and sympathy of a true man, he can but weep with those who weep, as well as rejoice with those who rejoice; he ought to have regrets for failures, as well as exuberant joys for successes.

[LXXV.]

**THE ADMINISTRATION OF IODIDE OF POTASSIUM
TO NURSING CHILDREN THROUGH THE ME-
DIUM OF THE MOTHER'S MILK.**

TRANSLATED BY J. TASCHER, M. D.

From Medizinische Neuigkeiten für Praktische Ärzte.

Dr. J. Luzausky reports in his clinical experiments made in Prof. Pick's division, in the Prague Hospital. His experiments were conducted with a view to administering iodide of potassium to nursing children through the medium of the mother's milk, when indicated.

The subject experimented on was a mother with a child five months old. Both had a syphilitic eruption of the skin. The child, in addition, having several ulcerative patches in the mucous membranes of the mouth, with lymphatic enlargements, etc. The child was ordered to be kept clean and dry. The mother received fifteen grains daily, one-half in the morning and the rest in the evening. In the urine and milk of the mother, iodide of potassium could be detected the same day. In the urine of the child, it could not be detected until the morning of the second day. Under this treatment the child improved rapidly, the eruption, ulceration and lymphatic enlargements all disappeared. The exanthema of the mother also disappeared. She never complained of anorexia. She did not get anæmic, but, on the contrary, increased in weight and strength. Her breasts, which were from the beginning large and had a good supply of milk, showed no decrease in their size. There was a slight decrease in the quantity of the milk, likewise the milk was rich in milk globules and of excellent quality. By the administration of iodide of potassium in this wise, many of the difficulties attending the treatment of syphilitic nursing children may be overcome. It may be used in the treatment of older children in other diseases, where iodide of potassium is indicated, and it may be administered to adults, who, from an idiosyncratic condition of the system can not take other preparations of iodine, by administering the milk (iodide of milk) of an animal into whose feed a large quantity of iodide of potassium has been introduced. (*Vierteljahrsschr, f, Dermat, n, syph, 1878, No. 1*).

S E L E C T E D .

Treatment of Syphilis without Mercury.

BY DR. J. P. H. BOILEAU, B. A., F. R. C. S. I.

Surgeon Major, Assistant Professor of Pathology, Army Medical School, Netley.

It is believed by not a few, that no wise man would attempt to dispute the efficacy of mercury as an antidote to syphilis. Many hold that the disease cannot be eradicated from the system without the use of the mineral. With my experience, I cannot but hesitate to accept such views.

My position is briefly this. In May, 1865, I was gazetted to a regiment about to proceed abroad. I served with it in the Mediterranean, in Canada, and in the West Indies and at home; and left it in October, 1876. For ten years of that period, I was most closely associated with the regiment, and had many facilities for prosecuting inquiries into the *results of the treatment of disease, and, by observations, continued year after year, for satisfying myself as to the state of my patients, long after they had been the subjects of my treatment*; and so I am in a position to-day to bring to your notice, not only cases of syphilis treated without mercury, but, I believe, cases of syphilis cured (by natural processes, or otherwise) without mercury.

The principle which in the main guided me in the treatment of syphilis was the principle of avoiding mercury as much as possible; and, in carrying out this principle, I treated most of the cases without prescribing any form of that remedy. Rarely did I resort to fumigation or inunction; and I now believe that it would have been better had I discarded all local remedies having mercury in their composition. As a rule, I did not use such applications. I tried the internal administration of mercury in some cases, without being at all satisfied concerning its alleged antidotal or curative powers.

My general principle is well attested by a gentleman (now a commissioned officer, and occupying one of the most responsible positions in connection with the Army Hospital Corps) who for eight years as hospital sergeant and compounder carried out my instructions. In reply to questions I have sent him,

he writes: "As regards your treatment of syphilis, I know you were always averse to ordering mercury for the disease; indeed, I am quite certain of this, as you invariably marked the Venereal register—NO MERCURY." And he adds: "As well as I can recollect now, all the men treated by you made good recoveries. And I don't remember a single man who was invalided, excepting L."

Such are the indisputable facts of the case. For several years I treated syphilis, in the majority of cases, without the use of mercury internally or externally; and in all such cases, without any exception, the ulterior results were most highly satisfactory; even the man L., who was invalided, returned to his duty in good health, and served for some years afterward.

The following cases illustrate the general mode of treatment and its results.

Case 1.—A. M., aged 32, had a solitary sore in grizzly induration. The occipital and inguinal glands were much enlarged. He had roseola and rheumatoid pains. He was treated in September, 1867, locally, by fuming nitric acid, and water dressing. The chancre healed in twenty-three days. Internally, he had iodide of potassium, nitrate of potash, compound ipecacuanha powder, and liquor opii sedativus. In February, 1868, he was looking well, and at duty. In March, 1871, he was in excellent health; and he continued so until he was discharged the service.

Case 2.—B. T., aged 20, had an indurated sore, roseolar and papular rash, psoriasis of the arms, and very severe ulceration of the tonsils. He was treated October, 1867, locally, by nitrate of silver and sulphate of copper. Internally, he had iodide of potassium, cinchona, and compound ipecacuanha powder. In May, 1868, he was in excellent health, and remained in good health until transferred to another regiment in February, 1873. I heard in 1877 that he was in good health.

Case 3.—C. J., aged 25, had an indurated sore, indurated glands in both groins, and roseolar and papular eruption, very marked and widely spread. He was treated in December, 1867. He was in very good health when he took his discharge in 1871, and also by accounts lately received. The

only local application was cold water ; and the chancre healed readily, although the induration was very persistent. Iodide of potassium was administered in decoctum cinchonæ, and he had the usual hot baths.

I must state that all my cases of syphilis were treated by hot baths. Whatever variety there may have been in the use of other remedies, there was none in this. *Hot baths were the standing order for all cases of syphilis.* And, for the most part, the men were strictly confined to bed, often notwithstanding their entreaties to be allowed to get up. The most scrupulous attention was paid to the cleanliness of their linen.

Case 4.—D. W., aged 25, seven weeks previously to his admission for true Hunterian chancre, was under treatment for phagedænic ulceration of the prepuce. With the hard sore, he had indurated inguinal glands. The initiatory fever of second aries soon appeared, and with it a dusky purplish papular rash, having a pustular tendency. The nates became covered with condylomata, and the scrotum before long looked like a piece of raw beef, dotted with little patches of oyster-shell. He was treated in December, 1867, locally, by sulphate of copper. Internally, he had iodide of potassium, cinchona, and Dover's powder. In May, 1868, his temperature was 98°, tongue clean, skin perfectly clear ; there was not a trace of any rash, pimple, or sore. The scrotum was perfectly healthy looking. He was in robust health, and he continued so until he deserted some years afterward.

Case 5.—E. D., aged 25, had a circular indurated ulcer, enlarged and indurated glands in the right groin, roseola, and a papular rash. He was treated in July, 1868, locally, with cold water only by day ; and by night, unguentum simplex. Internally, he took chlorate of potash, quinine, and Dover's powder. In October, 1868, he was in good health. In March, 1871, he was in excellent health. In 1878, he was in good health, and still in the service.

Case 6.—F. G., aged 26, was twenty-six days in hospital for primary sore, with inflamed glands, which did not suppurate. He had a papular eruption over the whole body, and ulceration of the tonsils. He lost all the hair on his head and

face. He was treated in September, 1868. In May, 1869, there was no trace whatever of the disease. He was in good health when discharged the service in 1871; his hair had all grown again. Chlorate of potash and Dover's powder were the remedies employed.

Case 7.—G. C., aged 20, had Hunterian chancre, with indurated glands on both sides, and roseola and papular rash. He was treated in August, 1868, for phymosis, complicated to such an extent that circumcision was necessitated. Alum and carbolic acid were used locally, and iodide of potassium and Dover's powder internally. In December, 1868, his health was good. In June, 1869, he had not a trace of the disease about him. In March, 1871, he was in excellent health. There was a very fine white cicatricial line on the prepuce.

Case 8.—H. C., aged 26, was treated in November, 1869. He was in good health in Jamaica in 1871. In 1878, I was informed that he was married and the father of two healthy children.

Case 9.—I. J., aged 22, was treated in December, 1869. In January, 1871, his health was fair. In May, 1871, his health was good. In 1878, he was in good health, and the father of two healthy children.

Case 10.—J. R., aged 19, was treated in January, 1869. In January, 1870, his health was good. In March, 1871, he was in good health, and was so when discharged the service.

The above are examples of cases treated without any mercury. Many others of a similar character passed through my hands; but it is my desire that not only such, but examples of a number in which mercury was locally applied, should be given; because my position is sustained not only by several individual cases such as those narrated, but by the very satisfactory eventual results of all the cases treated by me between 1865 and 1876; and, in order that I may be justified in bringing forward this *tout ensemble* of my practice, as a proof of the curability of syphilis without mercury, I am bound to give examples of those cases in which the mineral was locally applied.

Case 11.—N. G., aged 26, had extensive ulceration in, and surrounded by cartilaginous induration. The inguinal glands were enlarged. He had roseola and pharyngeal ulceration. Lotio nigra was used in this case. He was treated in October, 1868. In March, 1869, he was in good health. In April, 1870, he had remittent fever, but was discharged in good health in May. In March, 1871, he was in excellent health; and in 1877 was still in the service and in good health.

Case 12.—O. C., aged 23, had a circular solitary indurated ulcer, enlarged inguinal glands, roseolar and papular rash over the whole body, and mucous tubercles on the inside of the thighs; the scrotum was covered by an eruption of papules. On several parts of the body, small gangrenous ulcers appeared; and he had pharyngeal ulceration. The only mercurial preparation used was lotio nigra, and that only for a period not exceeding seven days. He was treated in October, 1867. In March, 1868, he was in fair health. In May, 1868, he looked well and felt so. Not a trace of disease was manifest, excepting some slight coppery patches on the inside of the thighs. In May, 1871, he was in excellent health, and was in good health when discharged in 1874.

Case 13.—P. M., aged 25, had indurated sores, indurated glands in the right groin, and roseola. Lotio nigra was used for a few days, and the only other drug employed was spirit of nitrous ether in camphor mixture. He was treated in February, 1866. In May, 1866, he had scarcely a trace of disease about him. He was in good health when he deserted in 1869.

Case 14.—Q. L., aged 26, had an excavated hard chancre, four enlarged glands in the left groin, a roseolar and papular eruption, and condylomata of the nates. Lotio nigra was used for a few days, when water-dressing was substituted. He was treated in April, 1868, and made a rapid recovery. In June, 1869, he was in vigorous health, with no evidence whatever of disease about him. In March, 1871, he was in excellent health. In 1878, he was in the service, and in good health.

Case 15.—R. F., aged 23, had a chancre in great cartilaginous induration; the inguinal glands on both sides were

enlarged and hard. He had an eruption over the whole body of a roseolar, papular, and squamous character; and tonsillar ulceration. *Lotio nigra* was used for a few days. He was treated in February, 1870. In June, 1870, he was in good health. In September, 1871, he was in very good health. He was in good health when discharged the service in 1876.

Case 16.—S. N., aged 22, had a circular hard sore, indurated glands, and macular rash. *Lotio nigra* was used. He was treated in October, 1871. In 1876, he was in good health, married, and the father of one healthy child.

Case 17.—T. J., aged 21, had a solitary sore, enlarged glands, roseola, pharyngeal ulceration, and condylomata of the nates, scrotum, and thighs. The only mercurial preparation used was the milder ointment of nitrate of mercury occasionally at night. He was treated in January, 1868. In May, 1868, he was much improved in health. In August, 1868, he had not a trace of disease about him. In March, 1871, he was in excellent health. In 1877, he had no trace of disease; his health was good.

Such local applications as black wash, calomel, red precipitate, or citrine ointment do not in the least degree, in my opinion, diminish the value of the cases in establishing the fact that syphilis can be cured without the specific action of mercury. In my cases, the actual amount of mercury imbibed by the system must have been very small indeed; the remedies were not at all pushed, quite the contrary; and any one who could attribute to their use the good results which followed, must be a believer in the Hahnemannian doctrine of infinitesimal doses. It must be remembered that advocates of mercury contend that, without approaching the direful effects of salivation, a cure can only be effected by introducing a considerable quantity of the mercury into the system, and by protracting its use over a long period.

The cases of syphilis in which I have used mercurial preparations locally have, with great complacency, been quoted against me, as mere illustrations of cases cured by diaphoretics, alteratives, and small doses of mercury. I admit nothing of the kind. When I reflect on the composition of these local

applications, and on the quantity likely to have been absorbed into the system, I say it is a perversion of the facts to attribute the recoveries in such cases to small doses of mercury. I have, however, treated too many cases of syphilis without any mercurial preparation whatever to doubt that the disease may be cured without them. My sheet-anchor has in all cases been the frequent employment of hot-water baths; the patients being a good deal confined to bed, the most scrupulous attention being paid to personal and surrounding cleanliness, full hospital diet always allowed, and with some exceptions, a pint bottle of the best ale daily. Iodide of potassium took second place in the treatment, and other salts of the same alkali were freely used at times.

The majority of the patients were young men, and when they contracted the disease were in good health.

During their treatment, they were the subjects of rigorous discipline.

For the purpose of illustration, I have chosen from the hundreds of cases of venereal diseases which I have treated, only examples of those in which characteristic secondary manifestations followed indurated chancres without suppurating buboes. I thus silence those who might contend that perhaps my cases were not cases of syphilis at all.

I would beg of those who hold that the specific action of mercury is absolutely necessary for the eradication of syphilis from the organism, to consult the works of Hughes Bennett, Lancereaux, etc., for a list of observers, committees, or councils that have declared in favor of the simple treatment of syphilis.

My experience as an army medical officer of fifteen years' service, ten of which were passed with one regiment, compels me to believe that syphilis is as curable without mercury as is small-pox or typhoid fever. And until I have some better proof than a mere *ipse dixit* that all the patients that I have treated without mercury are still under the influence of the syphilitic poison, I certainly cannot admit it. To the logic, however, of well-sustained facts, I am quite vulnerable.—
British Medical Journal.

Chronic Intermittents.

The continuance of a chronic intermittent is most frequently the result of splenic hypertrophy. The hypertrophy at first was a secondary matter, but when well established it becomes the primary cause. This, I am satisfied, is a fact, and so long as the hypertrophy exists, so long will there be a return of the paroxysms. Quinine, iron, strychnine, picrate of ammonia, etc., are given separately, and combined in every conceivable manner, yet the paroxysms appear every eighth, sixteenth or twenty-second day for months, until the patient becomes bloodless and reduced to a mere skeleton; the abdomen distended by the enlarged spleen and from dropsical infiltration, etc. What is necessary in these cases is to remove the splenic hypertrophy which is positively the exciting cause in combination with the malarial effect, if the patient lives in a malarial district. "There is a balm in Gilead," and when the profession has whiled away time enough in sporting with chronic intermittents dependent upon an enlarged spleen, it will have come to an understanding of the matter, and resort to means that will speedily remove it. We have one remedy that will cure, I believe, any case of this character, if fairly and properly administered. The drug is *grindelia squarrosa*. I have cured over seventy cases in the past four years, and I have yet to see the case it will not cure if properly given. That it might sometimes fail would not be strange, as all remedies will sometimes fail; but failure with this in my hands has never occurred for this purpose. My last case is that of a child eighteen months old; the spleen being four times the natural size, and had existed seven months when I commenced treatment. I gave *fld. ext. grindelia sqr.* (P., D. & Co.'s) ʒiii ; *syr. acacia*; *aqua dist. aaʒii*. M. S. Teaspoonful four times daily. In three weeks' time the enlarged spleen was reduced to its normal size, and the child making blood rapidly, and well-nigh recovered. For adults, break up the paroxysms with large doses of quinine, say 10 to 15 grain doses once daily for one, two or three days, as may be necessary, then give the following to relieve the hypertrophy and arrest a return: *ʒ fld. ext. grindelia sqr ʒiii.*; *syr. acacia, ʒiiss*. M. S.

Teaspoonful four or five times daily. R Tr. ferri chlor. ζi ; simp. syr., ζiii . M. Sig. One teaspoonful four times daily. One may be given before, and the other after meals. This should be continued for from three to ten weeks, or until the spleen resumes its normal size.—*Dr. J. H. Bundy in California Medical Journal.*

Eclectics and Allopaths.

The question, "What is the difference between the Old and the Eclectic Schools?" is a demand for the statement of the disagreements, on which one or the other must be wrong, and on account of which one or the other must be condemned as in error, and rejected as the less safe.

To the question as above stated, the reply is: "There is a class of Old School physicians between whom and Eclectics there is no difference of fundamental doctrine or principle of practice. Then again, it is only the doctrine and practice of this class of Old School that would be regarded by that entire school as representative of proper old school medicine and medication. Between the Old School medicine and Eclectic medicine, we repeat, there is no fundamental difference. Thus, then, it is not any difference of "school" doctrine that distinguish the schools from each other, or that prevents harmony and coalition between Allopaths and Eclectics. We can endorse every principle of Eclectic medicine with the expressed, or logically implied approval of the highest and most advanced authorities of the Old School; and this approval of these authorities will not be condemned by any rational and well-informed Old School physician.

Still the fact remains that the two "schools" exist, and that they are in jealous rivalry and strife. Each has its partisans, and their aims and interests seem to conflict. Why this is so, is a very different question from what are the differences between them. The wretched truth of the whole matter is as follows: There is no difference of fundamental school doctrine on medical subjects dividing or distinguishing the two schools from each other. But the medical reformation

that developed the Eclectic system began on the conviction that "no medicine or measure that impaired vitality should be used in treating the sick;" and the knowledge that the medicine of that time did severely, and often fatally, impair the power to live and to resist disease. Such being the influence of that old-time medicine, the above-defined conviction was an unequivocal condemnation of it, and, if successful, must infallibly convict those who practiced such medicine of irrational and injurious treatment of disease. Of course, therefore, the practitioners of that old system resented this condemnation of themselves, and actually (though we will not say, consciously), essayed to defend and justify themselves and their errors by repressing and condemning the truth, and destroying the influence of the men who promulgated and sustained it. The bitterness thus aroused was intensified by that success of the new medicine which divided the authority and patronage of the before unquestioned and unrivaled "regular profession." And now, notwithstanding the entire list of truly rational and properly educated men, of all schools, is subscribed to the principles introduced and developed by the above-mentioned reformation—though all that is universally orthodox doctrine to the Old School is but a more or less complete duplicate of eclectic medicine—still the Old School, faithful to its tradition of real hate and affected contempt, refuses to "recognize" Eclectics as physicians. Although, under the influence and teaching of the public sentiment and professional experience caused and formulated by Eclectic medical leaders and institutions, the Old School has abandoned the principles condemned by the reformers, and has adopted the fundamental principles of medicine and rationale of medication, taught and observed by Eclectics, the Old School persists in giving the impression, by its conduct, that Eclectics are uneducated and unskilled in medicine, and unworthy of patronage or recognition as physicians.

This is the true ground of division—that which actually prevents harmony, unanimity and mutual recognition between the Eclectic and Old School of physicians. It must not be understood, however, from any thing above said, that the Old

School and the Eclectic practice are identical. There are important differences between them; although there is no incongruity of Eclectic with Old School medicine—no heterodoxy with the properly rational, on account of which Allopathy can claim any justification for withholding acknowledgment of the professional worth, respectability, skill and intelligence of Eclectic physicians, or the correctness, completeness and wisdom of Eclectic principles.—*California Medical Journal*.

Treatment of Gonorrhœa.

In an article on gonorrhœa, Dr. G. W. Stoner, of the United States Marine Hospital Service, states that there is no one thing so useful as sulphate of zinc in the proportion of two or four grains to the ounce of rose-water. The mixture is still more effectual if an equal or somewhat smaller amount of tannic acid be added.—*Buffalo Med. and Surg. Jour.*

Hay Asthma.

Maudie Muller, on an August day,
Took the fever called the hay.
Sneezing she went, and her shrill ah-chee!
The mock-bird echoed from the tree.
The Judge rode slowly down the lane,
Smoothing his chestnut horse's mane,
And, drawing his bridle in the shade,
With a sternutation greeted the maid.
He spoke of the grass and flowers and trees,
The pollen from which makes asthmatics sneeze.
And Maudie forgot her swollen nose,
And even her graceful bare, brown toes,
And listened, while a pleased surprise
Looked from her watering hazel eyes.
At last, with a wild ah-chee! ah-chay!
Ah-choo! ah-chaw! he rode away.
Maude Muller looked and sneezed, "Ah-chee!
That I the Judge's bride might be!
He would dress me in silks and diamond rings,
And take me up to the White Mountings.
And I'd use the finest white *mouchoir*,
And never have hay fever thar."
The Judge looked back as he climbed the hill,
And heard her sternutations shrill.
"Would she were mine, and I to-day
Were rid of this dab feber of hay!"
Then, blowing his nose, the Judge rode on,
And Maudie was left in the field alone.
Then she took up her burden of life anew,
Sneezing softly, "Ah-chee! ah-choo!"

Of all sad words of tongue or pen,
The saddest are, "Hay-fever time again!"
Ah! well for us all that a region lies
Where the infusoria never rise;
And in the hereafter, angels may
Find a cure for the fever called the hay.

—*New York World.*

EDITORIALS.

THE MEDICAL TIMES.

This number completes the *eleventh* volume of the MEDICAL TIMES, and the reader can now make up his mind whether or not he has received \$2 worth of reading during the past year, and, if he has carefully preserved the parts, can get them neatly bound for 50 cents—*making a book of six hundred and twenty-four pages*, that will serve as "a ready reference" on nearly or quite all the medical topics of the period, or, in other words, the improvements made in medicine and surgery. The most important feature of the journal is the large list of "original communications" from the pens of some of the leading men of the profession. Many of these articles are worth, to the reader, more than the cost of a year's subscription. We have completed arrangements by which our readers of the next year will obtain the very best and newest literature of the profession from the different States of the Union as well as the medical centers of Europe. The MEDICAL TIMES office is now supplied with nearly *two hundred* medical periodicals, which will be thoroughly culled, and a concise and reliable *abstract* made of all the improvements made in the science and art of medicine and surgery throughout the civilized world. Topics of immediate interest to the reader will receive careful editorial notice, as well as the introduction of all new agents which may be found to possess valuable properties—after a thorough proving. Our facilities for making the TIMES the foremost in the land are now complete, and the work mapped out for our *twelfth volume* cannot fail to instruct and please those of our brethren who elect to subscribe and go with us in the good cause of *rational* medicine. We take this

opportunity to thank our friends in all the States who have done so nobly in enlarging our list of subscribers. You may recommend the TIMES to your professional neighbor, with the full assurance that it is the largest and best \$2 journal now published. Our list contains several hundred names who have been constant subscribers during the entire eleven years, and, with good work and a liberal use of money, we hope to be able to please them eleven years more.

SPRING SESSION OF BENNETT MEDICAL COLLEGE.

The Trustees and Faculty have decided to hold a two-months' spring session, beginning April 1. Professors Jay, Clark, Olin, Harrison, Buecking, Rush and others of the regular Faculty, will deliver a course of lectures upon special topics, pertaining to medicine and surgery. At the present writing, we are unable to give a complete outline of the course, and can only promise the readers of the TIMES that it will be eminently practical, and interesting to both students and practitioners. It is designed to devote special attention to important subjects, a treatment of which, in the regular course, is prohibited from lack of time. Daily clinics will be held throughout the term, and interesting cases from the hospital, as they occur, will be presented to the class.

The dissecting-room will remain open, under the charge of Prof. Tucker, and an abundant supply of material is assured. The course will be free and open to all, and doubtless many will be glad to take advantage of such an exceptional opportunity.

BENNETT COLLEGE.

The commencement exercises of the current collegiate year will take place at Hershey Music Hall on Tuesday evening, March 23. An unusually interesting *programme* for the occasion is now being prepared, and the *Alumni* and friends of the

College, who may be fortunate enough to be present, are assured that the entertainment will be an interesting and profitable one. The Harrisons will do the principal part of the "orating"—The *senior* H., on behalf of the Faculty; and the *junior* H., for the "new M. D.'s," Masters of the musical art will sandwich in with the exercises some of their best selections. The dignified President will pronounce his last and *best* advice to the graduates, and, altogether, it is confidently expected that much the largest class will be made happy that evening that has ever gone out from this institution. It would be quite difficult to find, in any college in the country, a more thorough and diligent class of students than the present. They have faithfully stuck to the *text* and attended promptly to business, and, hence, have quite thoroughly mastered the difficult *curriculum* of this College, and will, doubtless, take high rank in their chosen profession.

NOTES FOR THE ALUMNI.

The interest manifested in the proposed alumni meeting by graduates at a distance is exceedingly gratifying, and the prospect is good for a large and enthusiastic convention. It is yet too early to announce a definite programme, but we may expect a report from the committee early in April. In the mean time, suggestions will be gladly received by the editors of the *TIMES*, with reference to topics for discussion, the assigning of subjects to speakers, and any other matters of interest.

It is proposed to have an historical address commemorative of Bennett College, from its inception to the present time.

One or two short addresses, commemorative of deceased graduates, are desirable.

Let all make an effort to be in attendance, and prepared to furnish items concerning their own personal history, as well as that of deceased or absent members. We can assist one another aid the college, and have a most enjoyable time, by attending the proposed meeting the day before the "National."

BOOK NOTICES.

HYGIENE AND EDUCATION OF INFANTS; OR, HOW TO TAKE CARE OF BABIES. By THE SOCIÉTÉ FRANÇAISE D'HYGIÈNE. Translated from the French by GEORGE E. WALTON, M. D. Cincinnati: Robert Clark & Co. 1880.

This little pamphlet is a translation of a recent work bearing the seal of authority, and will doubtless be of use to young mothers, in acquainting them with many of the details necessary to be observed in the proper rearing of children. It might profitably be read by many physicians, whose directions are too often inaccurate and unreliable.

REPORT ON THE REVISION OF THE U. S. PHARMACOPŒIA, PRELIMINARY TO THE CONVENTION OF 1880. Prepared and compiled by CHARLES RICE, Chairman of the Committee.

The author calls this production a rough draft of the general principles, titles and working formulæ proposed for the next Pharmacopœia. We shall not attempt a criticism or review, for, in order to do the subject justice, more time and study would be required than can at present be afforded. From a hasty glance at the contents, we should say that the author has done his work thoroughly, and has proposed several reforms that are greatly needed.

CHEMICAL PHYSIOLOGY AND PATHOLOGY. By VICTOR C. VAUGHAN, M. D., Ph. D., Lecturer on Medical Chemistry in the University of Michigan. Part II.—Plates. Ann Arbor: Sheehan & Co. 1879.

We have already given a commendatory notice of Part I. containing the text of the above work, and a subsequent more careful examination has greatly enhanced its value, in our opinion. It should be in the hands of every medical student.

Part II. is a series of charts containing forty plates, representing the physical appearance of all the crystalline, amorphous and organized deposits which are likely to appear in the urine. All the objects are represented as seen when magnified four hundred diameters, and the cuts are skillfully executed.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M. D., Prof. of Principles and Practice of Medicine in University College, London. With notes and additions by HENRY HARTSHORNE, M. D., late Professor of Hygiene in the University of Pennsylvania. Published by Henry C. Lea, Philadelphia. Sold only by subscription. D. W. Wilson, McVicker's Theater Building, Agent for Chicago.

This work is an American reprint, in three volumes, of the English edition, so well known and highly valued. The notes and additions of Prof. Hartshorne, adapting the work to the needs of American practitioners, greatly enhance its value. Encyclopedic in character, it is yet concise and practical, and surpasses any work of the kind in the English language.

